OE Week and D&R Incident video Feedback Form			Supervisor: Nigel Hearne Work Group: Refinery Management team Date of Event: 12 Jan 2011 14	Supervisor: John Torres Work Group: Quality Management Group Date of Event: 18 Jan 2011 6	Supervisor: Don Kinkela Work Group: Design Engineering Leadership Team Date of Event: 20 Jan 2012 10
#	Focus area of Discussion	Discussion Questions	Comments:	Comments:	Comments:
1	Overall	How did the D&R incident /video impact you?	Focus of DISCUSSION - OPerational Discipline What it Means to You Using the Tools - LPSA, LPOs, Tenets, SWA, Hazard ID Vulnerability - having that sense of vulnerability that it can happen to you Personal impact of those involved - genuine and sincere that this incident could have been prevented. Individuals are good people and wanted to do a good job. The outcome could have been much different - WE WERE LUCKY ... or WERE WE UNLUCKY?? We were very blessed at the individual were able to share their story..... and the impact is much broader than jsut those directly involved	Group though video was very effective and send the right message. Group was pleased to see that the video provided some details of the incident and clearly reinforce the importance of Every Task, the right way, every time.	Video makes it real. Seeing those directly involved talk and hearing the radio calls reminds us that our co-workers were at risk.

2	OD - Tools	What would it have taken for the outcome of this incident to have been even more serious, or prevented entirely?	USE STOP WORK AUTHORITY, SAFE WORK PRACTICES, HAZARD ID/RISK RECOGNITION What are Leadership Practices around OD Stewardship... setting right expectations and reinforcing through the line... Many people involved in the activity, but it appears nobody had a clear picture of who was doing what. There was not a clear understanding of the equipment status - through turnovers, crew meeting or leader in the field. Somebdoy needed to be providing oversight (Major Incident Study top cause). WHO WAS IN CHARGE? Risk recognition as a group was missing .... lots of individual assessment and assumptions. Clarity around expectations as part of the transition from shutdown plant to running plant - valve tagging, using procedures - **follow SAFE WORK PRACTICES** Understanding of the high DP across the filters and recognizing there was no backflush mechanism.	More Serious: if personnel were in the wrong position on the deck to make egress more difficult, the result could have been much worse. It was also fortunate that the operator was able position the monitors to try and minimize equipment damage. Prevented: More effective use of LPSA. Clear understanding of exactly what posture day shift left the equipment. Use of bleeder tag when bleeder was opened.	Could have been prevented by: * Using stop work authoity to halt the Field T/Os * Doing a LPSA before beginning work * Having crew stay over to complete the job Could have been worse if: * Employees could not exit the platform * Employees were injured while exiting the platform * Chopper valves didn't work * Emergency response time was slower.
3	OD - Hazards and Risks	What are our critical tasks that always need to be done right every time? Are we identifying the hazards and potential consequences fully? If not, what needs to be done?	use STOP WORK AUTHORITY - have your team articulate the ASSESS, ANALYZE and ACT (big issue was absence of the ACTION) - how do we ensure that our teams are taking time to identify the hazards and risks? Using PROCEDURES, Performing ROUTINE DUTIES, Responding to DEVIATIONS, LOTO, issuing PERMITS, Confined SPACE ENTRY Performing a PHA or a MOC, correcting a DEVIATION, developing the AOP, writing an EWO Performing a PM or INSPECTION, REPAIRING equipment, following a EWO Processing invoices, salary treatments or contracts / POs	LPSA for EVERY task. Strict adherence to the procedure. Clear, effective accurate turnover. Consistent use of all the tools and procedures we have available.	* Using the right standards * Involving the right people * Performing a LPSA at the beginning of every task * Verifying that what we just did was actually what we intended and is correct.

4	Sense of Vulnerability	Can a similar incident happen to you or your coworkers? What situations trigger a greater level of attention in you? What do you do differently when those situations occur?	it can HAPPEN TO ANYONE OF US - there are many examples aroudn the refinery Not just the high risk - it is ATTENTION TO DETAIL on the ROUTINE - SMALLEST OF DETAILS CAN HAVE THE LARGEST OF IMPACTS Engrain the RISK RECOGNITION - LPSA - ALL IT WOULD HAVE TAKEN WOULD WAS 15 seconds	Absolutely! Concern/reluctance to question peers when critical tasks are being performed. We need to improve our communication and use of IIF principles when working as a team, particularly when interactive with multiple disciplines (Maintenance with operations, etc). Essentially, we need to improve our comfort with executing SWA. Also, it seems that many incidents have been associated with LOTO. IS there anything we should be doing to improve in this area?	Sometimes we distinguish between safe and unsafe areas, but in reality all areas pose a risk. The key is to understand the risk where we're at and address it.
5	Stop/ Pause Work Authority	Describe how and when Stop/ Pause Work Authority could have been used to prevent this incident. What do we need to do to ensure successful Stop/ Pause Work Authority?	SWA could have been used: In advance - lighting High delta P on filters Field Turnovers - crew discussion Safe Work Practices - around valve tagging Recognizing plant was live - no longer in TA practice No procedure or job aid for plugged filters	Execution of SWA would likely have been a result of an EFFECTIVE LPSA.	Pause work authority could have been used multiple times leading up to the event: Field Turnovers, at the beginning of the job, by anyone who saw what was going on and recognized the risk. We need to use pause work to complete a LPSA anytime we're unsure of a situation even if those around us appear confident.

6	Shift to Always	How did the D&R incident (or another incident) change your approach to work and keeping yourself, your family, and your Chevron family safe?	I have to take personal responsibilty to ensure that everybody feels comfortable to USE the TENETs, take that 15 seconds (ALWAYS time to do it right).	In our complex business, we can't assume anything! Every time we use the word "assume" we should be utilizing LPSA and SWA!	Reminds us that it is often the small things that cause the greatest harm. How often do we let our mind drift when driving, cooking, working with power tools. The risk of an incident goes up whenever we're comfortable with our task. Procedures and the people around us help to keep us focused on the task at hand.
7	OD	In our work, does the potential for an incident exist because expectations are situational or non-standardized? What are they? Example from the D&R Incident: During a start-up while O2 freeing a plant, the process for tagging bleeders was situational... Does a bleeder tag need to be used every time a bleeder is opened? Or just when you walk away from it? Discuss any similar scenarios.	What are those conscious decision we need to make that are situational? Who do these fall on to make? This is really our role as leaders to recognize the change and shift the expectations/paradigm..... starting a new year, following an injury, following a rund of environmental incidents..... starting plants up, starting a compressor or a furnace... we have tools for each of these scenarios	Group discussed but did not identify any similar scenario	We have a waiver process for Chevron Engineering Standards. We need to be very careful that there is a sound technical case for deviating from these.

8	OD - Comm.	In the D&R Incident, there may have been two factors negatively impacting hazard communication - multiple people fulfilling a single role and modified field turnovers. In our work, are there gaps in communication about equipment status, regulations, requirements, or roles and responsibilities that creates the potential for an incident? What are they?	SUPERVISION AND OVERSIGHT - has historically been one to the top 3 or 4 on the Major Incident Study	In Reliability, electronic turnovers are utilized which are not always accessible to all involved parties (CVX employees vs. contractors). This can and has caused delays in work, or perhaps even the wrong work being performed. We need to ensure all personnel involved in a task has access to all necessary information and tools.	Potential for knowledge gaps with newer engineers performing routine work (routine EWO's etc). We need to ensure that we commiunicate our standards and provide adequate oversight.
9	OD - Job Aids to Procedures	Do you have job aids, procedures, or work processes that need revising? Or, Do you have job aids that should be procedures because of the risk associated with them? Discuss the course of action to bridge any gaps.	Do YOU USE them ..... JLAS, PROCEDURES, RI's are we clear when we think through frequency, risk and complexity. Are you fluent on expectations? Can you Articulate the risk matrix.....	Did not identify any.	

	People Present:	Absent:	Absent:	Absent:
				Dillon, Craig
		X		Scaief, Brian
				Lucchini, Paula
		X		
		X		
		X		
		X		
		X		

Absent:		6	0	3

Supervisor: Dave Feiglstok	Supervisor: Alan Lowell	Supervisor: Wendell Helton	Supervisor: Elijah Burkhart
Work Group: HES Leadership Team	Work Group: Routine Maintenance Team	Work Group: A Crew STL's	Work Group: RMC Crew
Date of Event: 17 Jan 2011	Date of Event: 1/18/2012	Date of Event: 21 Jan 2012	Date of Event: 1/22/2012
7	18	6	9
Comments:	Comments:	Comments:	Comments:
The video made the incident personal. These are our family members and friends. 3rd time to see it and the scene "has anyone see" still shakes me up.Not know if everyone is accounted for has to be the worst feeling ever. Reminds me of fellow employees who have been burned in fires and are still around. It is time to stop having these types of incidents. Enough is enough. The team is our family. They trust each other and their skills. If they don't use those skills, the worst can happen. Hard to watch. Touched me personally. My husband is out there, our friends are out there. An incident like this can have horrible consequences.	Many attendees knew the Operators in the video and it seeing them discuss the events made it real for everyone in the room. Some are friends with family members of the Operators and how this not only affects the person involved, but their family and co-workers	Importance of doing things safe all the time, have checks and balances in place, use all LPS tools. Think about tasks before you go out to perform them, utilize procedures and job aids. Importance of good Teamwork when performing tasks. Human factors play a role in most all incidents. Video makes it more personal for people not working at D&R.	The crew feels like there are changes to be made i.e. Human behavior (doing LPSA's), Complacency, Too much assumption.

People in the flash zone. Consequences would have been dire. Small move either way could have prevented of made this incident worse. Tagging the open bleeder may have helped folks see it. Non-essential being out of the plant helped. This was discussed before start up. Complacency sets in when task are repetative, lowers folks sense of vulnerability. Need constant awareness. A properly done LPSA would had prevented this incident.	More serious: serious injury or fatalities(s) collateral damage- opening up of lines, larger fire, more damage Prevention: following procedures more ownership- multiple people may have assumed it had been lined up correctly recognize changing conditions follow tenets- time to do it right	Do not ever assume, Always check things over before proceeding. Lighting issue should have been addressed prior to proceeding. Always tag bleeders. Always follow procedures completely to the "T". Turnovers, make sure we do complete turnovers even when things are going good and especially when conditions change.	More Serious: People in the line of fire. Prevention: More training, follow procedures, improved communication / turnovers
a miscalculation on a report can result in an error in agency reporting and result in a fine and agency problems. Errors on the Hazardous Materials plan could result in lost credibility with the county. The ER team must check every tool that they use every shift to make certain everything is there and working. Failure to do this could result in not having a working tool when a life is hanging in the balance. Hazardous waste improperly disposed of can result in incidents, spills, injuries, significant fines, etc. The VOC Technicians are always at risk of falls from heights. They also make minor repairs. They need to know when they can make the repair and when to call in maintenance. Failure to recognize this can cause problems and result in releases.	1)LOTO electrical safe work practices JJSV's 2)No 3)SWA involve the right people better risk recvognition	All tasks need to be done right every time no matter how small or redundant if might be. All tasks should be thought of as critical to perform correct every time.	1) Lotto, JJSV's, JHA's, Turnovers 2) No 3) More communication, People need to feel more comfotable using SWA

Perhaps not a similar incident since we do not work with bleeders, but it is possible to forget a step to a procedure. For critical reports that have to be error free, we often have a peer review before submitting. This requires us to have the work scheduled and complete in time for such a review.	Yes, similar events have happened to many in the group. High risk jobs, non-routine work, unfamilar work. For this work, we pay more attention	Yes High risk activities Responding to alarms appropriately	1) Yes. 2) Every job should, Being in a new area or environment 3) Ask more questions, check everything twice, don't guess on issue that you may have.
It could have been used to increase lighting Stop the field turnovers, or at least caution folks about the risks It could have been used to allow for a double check LPSA and Stop work authority go hand in hand. the LPSA is needed to identify the risk. SWA is used to Stop the work until the risk is mitigated. SWA was used when a new engineer asked to observe the start up. Her team lead told Her that the number of personnel had to limited to essential personnel only. As a result, she was not there when the fire occurred.	Recognizing changing conditions, poor turnovers, feed in plant. We need to realize these events can happen frequently if we don't pay attention to small details and routine tasks. Need to have the discipline to follow safe work practices, LOTO and risk recognition to avoid	Pause, get together with folks in the field to go over exactly what is going on. Do not rush into work being done, remember there is always time to do things right. Make sure folks understand that they have the authority and obligation to use Stop/Pause work to help insure safe and incident free operations.	When? At turnover time We need to support our peers and direct report when using SWA and LPSA's.

We have to change to an "Always" environment where these types of incidents can not occur. I want to always remember how this feels. I never want to repeat this, or worse.	most of the group has seen incidents like this and how it impacts coworkers, friends and family. A big concern was noted for less experienced EE's who haven't been directly affected by an incident like this so they can't appreciate what can happen.	Always prepare for the worst!	Opened eyes to the fact that even small routine jobs can have large consequences. Reinforced the need for proper PPE.
Supervisor expectations very from crew to crew. Inconsistency breeds danger...	Many jobs in Maintenance are non-standard or procedures are not written for. That's why we need to adhere to SWP, LOTO and tenets.	Yes Dealing with the unknown All bleeders should be tagged if you have to walk away from the area for any reason. Multi tasking might cause someone to start a task, walk away and forget to return to complete the task causing an incident.	1) Yes 2) Different area's follow the procedures differently. 3) We need to have specific standardized procedures.

Communication is critical in the HES jobs. We often communicate requirements for performing high risk tasks. Consistency and accuracy are critical in our communications.	Turnovers from days to nights changing conditions in the field work scope change proper documentation	Incomplete and inaccurate written turnovers. When getting a verbal turnover make sure the giver as well as the receiver understands what is happening in the field.	When you are approaching a new job a lot of times the Operator is not familiar with the issues of the equipment.
In the HES field, many procedures or guidelines did not exist for the tasks that we would perform. The team has been developing desk guides and manuals to document the processes that are performed by the team. These desk guides are then used for LPO's/ CAP tasks should be revised to be more clear. This can occur as we move to the ESS data base.	Not much discussion on this topic of job aid vs procedure. Rocognition that they should be accurate and followed. Maintenance does have a gap in this area. We have plenty of work processes to keep us safe, we need to use them	Yes, which can be caught by LPO's, MOC's, Porcedure reviews etc. Make sure all red lined procedures get turned over to the right folks to get updated.	1) Yes 2) Every job should have standardized procedures.

Absent:	Absent:	Absent:	Absent:
Richard Quiroz		Bill Vassalo	
Richard Silvia			
Bob Chamberlin			

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Supervisor: Adam Lovano	Supervisor: John Jensen	Supervisor: John Jimerson	Supervisor: Alan Lowell
Work Group: D&R C-Crew	Work Group:	Work Group: C Crew Shift Team Leaders	Work Group: Routine Maintenance Team
Date of Event: 21 Jan 2012	Date of Event:	Date of Event: 20 Jan 2011	Date of Event: 1/18/2012
14	11	6	18
Comments:	Comments:	Comments:	Comments:
Overall excellent discussion. This video/incident served as a reminder to double check work, use co-workers to review work, utilize tools such as LPSA and stop work authority. Personal impact to folks and how it effects all of us even if not directly involved.	It made the operators seem like real people. It can happen to me. Procedures really are important. I could have been complacent just like them if I was tired. I could have taken things for granted just like them. I understand the time pressure to complete the job, but there is "always" time to do it right.	It deeply impacted each and everyone of us, as a supervisor one of your biggest fears is to have one of your employees hurt or worse, killed. Even though we are not direct peers with the Operators, we still share a bond and have care and concern for everyone who works in the refinery.	Very good video. Had a positive impact.

Discussed what went well that prevented a worse incident such as closed EBV's immediatley, shut off pumps, evacuated people out of area, started fire monitors, and called plant protection for assistance. Also discussed that coworkers on the deck could have been severely injured or died on one hand or completely prevented if any one of the multiple people on the deck noticied the open bleeder.	More serious if the operators had been traped in the fire. Prevented if someone would have noticed the valve was left open. If they had communicated at the turnover more thoroughly, the bleeder could have been addressed in the meeting. Was there a procedure for checking the bleeders? Did the operators in the field assume other operators had checked the bleeder? The EBVs saved lives?	A tag on the valve and better lighting. The switching area is very contained, a tag on the bleeder (eye level) would have been spotted. Very impressed that both banks of lights are now all working.	We got lucky. Could have been serious injuries or fatalities Much worse equipment damage could have occured from opening up of lines, larger fire, more damage Better lighting. following procedures Multiple people on crew caused folks to possibly assume someone else had looked at bleeder and valve positions. Always follow tenets
Many times risk/hazard is identified, but do not follow through on doing each task right every time. Discussed hazards were identified at the time such as low light conditions and multiple people on deck assuming one or the other had checked everything. One person attempted to adjust light plant and multiple people left deck. Continued follow through on eliminating these risks may have prevented event.	Making sure every person checks in at the control house so that the HO knows the name of every single person in the field. Make sure everyone is accounted for. Our inspections and supporting documentation are key to ensuring the work is done right in the field.	We sometimes fail to see the magnitude of critical task (seldom done and can cause injury or death) and very often perform routine task without even thinking about risks or the hazards. More focus need to go into hazard identification and assessing the risk. To often we are not thinking "what's the worst thing that can happen" Need to make it a bigger part of the start of shift OD meeting.	Use of stop work until issues addressed with lighting and communication.

Yes, people had multiple experiences where a bleeder was left accidently open and could have led to an incident. Discussed how bleeder tag and improved communication during turnover could have prevented incidents.	Absolutely. Checking with HO of any issues to be aware of. If you see an operator running, consider moving out of the area. Running means problems. RUSHING	Yes, everyone in the room has had experience with bleeders left in the open position that resulted in some type of release. Prior to startup we need to make sure every drain/vent had a bull plug installed. If the bull plug is removed a tag should be hanging from the valve. This will also reduce our VOC issues due to properly sealed drains and vents.	Yes, similar events have happened to many in the group. High risk jobs, non-routine work, unfamilar work. For this work, we pay more attention For routine tasks we are vonurable, Complacency or familiarity can cause us to not pay as close attention as we should. End of shift rool up can cause rushing and we are more volnerable at these times oif hurrying up
Discussed that there were multiple contributing factors such as poor turnover, lighting, and assuming one of the other persons on the deck looked over entire line. At any given time one of us could have stopped work and eliminate hazard before continuing. Some folks mentioned how in the past they have felt management pressure to get plants running. Discussed that when this comes up we need to stop, slow down, and think about what we are doing.	Wait until daylight to check the plant before starting up. Tag any open valve/bleeder to flag operators down the line that it needs to be closed. Big AND small valves matter. Flag them.	Should have used pause work to get at least 50% of the lights working. We all need to be better at using and supporting stop/pause work authority. Has and can be abused, but every concern needs to be addressed and taken seriously. 99% of the time the right people are there to work through the issues and safely get back to work.	We need to realize these events can happen if we don't pay attention to small details and routine tasks. Need to have the discipline to pay attention to the details of the job.

Discussed that you can't let your guard down and always remind yourself that we work in an environment where mistakes can lead to people getting hurt.	IF the plant is coming down or starting up, stay out until it is running normally.	We all agreed we have time to do it right or not at all. As a group we will all strive to be more in involved in plant activities and use outside the box thinking in our approach.	We know these people. Statement that previous videos seen and now they were making a video had impact that it could happen to us.
The overwhelming answer was you need to tag all open bleeders unless you are performing line of sight and close it before walking away. There were multiple examples from other events where people remember bleeder open and shouldn't have been.	There are no small issues in the plant. For example, big and small valves matter. Both can be hazardous if not addressed appropriately.	The answer is we need to tag all open bleeders unless you are standing right there performing a task.	We don't use LOTO too often, but use procedures. If we need to, we are working to develop job aids as needed. We have started but have a long way to go.

Yes, multiple gaps in communication mostly unintentional. An HO discussed daily turnover concern everyone is rushed to leave because the van is ready to go and he suggested for people to wait, do a complete turnover before leaving. Discussed that field turnovers can be safe and possibly safer if performed properly. It allows you to physically review pieces of equipment and point out ask questions on what you see. Acknowledged that transition times in plant operation (shutdown cold to startup hot) and crew shift change are high risk times and need to be on higher alert during these times.	There are gaps, potentially, between the engineer of record and the inspectors. Each inspector must sign off on an inspection if both are required.	We can always improve our communication, both verbal and written. Field turnovers can be very effective, but there is no replacement for a well written turnover. Tagging open bleeders is the right thing to do, it may add a little time, but in the long run it's just good operational discipline.	Turnovers from days to nights changing conditions in the field work scope change Equipment set up and condition
Yes, this is a continous improvement process that our team is commited to. When errors in procedures, job aids, or EOM found markups are sent to trainer for review and updated. Discussed that a job aid was available for this critical task and was not followed. Possiblity that with a high risk task like this that a signed off procedure may be more appropriate.	Documenting nonconformances in daily inspetion reports ensures communication is clear to all parties involved.	Absolutely, many area in the refinery do not have the people to support keeping procedures evergreen. Overall lack of interest by Operations to maintain manuals...believe it's the trainers job. We do have examples of Operators how take pride in marking up procedures while performing tasks. These sometimes don't get changed! All procedures flow through STL not trainer.	We are working on them, job aids. We have a file in the hall with the ones we developed. Need to work on creating more.

Absent:	Absent:	Absent:	Ridgle
Don Cook			Cuevas
Keith Herring			Layne
Mark Patterson			Mozzel
Juan Vargas			Y.Davis
			Bautista
			BIGGE
			Kal;owski
			Recio
			Nestor
			Mchaffee
			RSC
			McWilliams

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Supervisor: Steve Costa for Jay Peterson	Supervisor: Joe Smith	Supervisor: **Jim Forbes**	STL: Rick White
Work Group: Refinery M&R / Impact Management Team	Work Group: D&R Maint	Work Group: **MET Group**	Work Group: Blending & Shipping - B Crew T&B
Date of Event: 16 Jan 2012	Date of Event: 01/24/2012	Date of Event: **1/26/2012**	Date of Event: 1/24 and 1/26
7	19	17	16
Comments:	Comments:	Comments:	Comments:
Didn't realize how significant the event was until I saw the video How lucky we really were This could happen to me...how important our tools (LPSA, SWA and Tenents of Operation) are to our safety I understand why OD is so important	The incident was close to home. One of our crew member's brothers was caught in the fire. Very emotional by all. Operator seemed rushed to complete this task. Fatigue from the shutdown could have kept them from having their full focus on the task at hand.	The biggest impact this video had on our group was being concerned for the missing operators. Many attendees knew the Operators in the video and it seeing them discuss the events made it real for everyone in the room.	Gave a feeling of vulnerability to our jobs. Never heard the phrase "There is a monster living in our pipes trying to get out" before

Prevented Individuals behavior's Right task the right way everytime utilize the tools that are given to us take ownership of your work More Serious Few seconds A few feet Fire monitor not near by	Stuff was not in the way preventing operator from getting away from the fire. Operators knew there was a second escape route down the ladder in the back. Operators blocked in the valve to keep the fire from getting worse. Lighting should have been improved. Communication should of been better. A better walk of the system and tags could of helped pervent this from happening.	The outcome of this incident could have been significantly worse if - could have burned longer and affect much more equipment - if valves failed to isolate it. The incident could have been prevented by following all field turnover procedures with better communication.	To not do field turnovers, to do them one on one in a controlled setting. To use a printed isolation sheet to locate all open valves, bleededrs, etc instead of relying on your "expertise" and memory.
OD Stewardship Give feedback to work groups during audits and observations	Every task is important and should have your full attention. JJSV is a critical task that needs to be correct 100% of the time.	Critical Tasks : we perform critical jobs safely and recognize those hazards, but we are not great at recognizing hazards in less critical jobs	Setting up the MoGas Blender prior to startups. Taking equipment such as pumps , lines and tanks out of service for repairs and then first fills and putting back in service. Pulling samples on sour recovered oil, hot resid, gasoline, crude oil. Going on tank foofs for inspections/repairs. Using SCBA for jobs where fresh air are required. Sailing/Tieing up ships.

Can happen to me at work and at home..always need to perform an LPSA before every new task	We all have a sense of vulnerability. The same situation could happen to us. We work are operators and other crafts all the time. Work around electrical high voltage puts us at risk	Hightened sense of vulnerability	Yes. Situations where we know someone has been hurt before or our training has emphasized the extreme safety hazards involved.
Could of used SWA during OPS Turnover, 5 Operators on the deck, HO and Supervision coming in on nights during a start of work tailgate meeting. Stewards of SWA need to consistently stress the importance of SWA before every shift	Supervisor could have used it when he heard about the field turnovers. Poor lighting should have made someone use SWA. If the crew felt rushed they should have paused and made sure they were doing everything correct.	At least 50% of group has used stop work authority - see that it is being more widely used in refinery and esspecially with contractors	Maybe when field turnovers are not adequate. Maybe after several weeks of 6 work days with one day off somebody would realize extra precautions should be used, more breaks or EE involvment with regard to safety. Involving the right people.. Maybe the HO to say to ALWAYS use a procedure or Isolation List when putting equipment back into service... At Night, above grade, in confined areas, etc.

Double check every task Risk is not an option	We can't get complasant when performing the same routine tasks. We need to walk our jobs closly and perform a through JJSV. Keep out awareness up. We all need to have good housekeeping.	Brings to light the importance of finding out why the schedule may not have been adhered to. New folk may not be able to complete work safely in the same amount of time as experienced ones. Ask the question why before jumping down on people for not getting the work done.	Be more carefull, follow training given, ask more questions, Use Stop Authority more often
All bleeders need to have a Bull Plug or Ops Tag. During T/A we Loto at the boundry (locks and tags) Equipment inside the boundry still needs to be released by tags.	We can't get complaisant when performing the same routine tasks. We need to walk our jobs closely and perform a through JJSV. Keep out awareness up. We all need to have good housekeeping.	Discussed the push back that has been experienced when trying to get people to use procedures or job aids. The negative thoughts that people naturally experience when another person is trying to back them up. People sometimes feel like they are being told what to do.	Bleeder tags must be used in all circumstances.

Company Reps Turnovers include Written Turnovers but not always include field walks. Incident free for Maintenance should include both on critical jobs. Company Rep Training should help on this issue.	Field walks and good communication is important	Communication is hugely important especially when handing off work, planning and scheduling to make sure it still gets done the right way	The gaps can happen between turnovers on the same crew (HO to PCO to Area Operator) when a line shows it is open on several tanks at the same time... when it is not. Communication between crrew members is essential between each other as well as when each party gives their end of shift turnover to their relief.
We always revise Impact Process and Roles and Responsibilities in Maintencance. Need to continue to remove obstacles so we can get out in the field and Steward our Job Aids, Proceedures and Processes.	Maintenance procedures and checklists are in need of improvement. Need a clear understanding when they are required to use.		Ocassionally we find a procedure that needs changes made, The hard copy is redmarked, HO approved and forwarded to the STL. Then it is discussed and given to SME or the Trainer for modification. The 1dt draft is then shopped to all 4 crews for approval, then the modified procedure is posted in the EOM and Level 1, 2 or 3 training given to crew members.

Absent:	**Absent:**	**Absent:**	Absent:
Ernie Monette	Carver, MJ		Jaime Oceguera on Union Leave
	Karbone, MJ	Mark Abrams	Marshall Rose on STD
			Steve Johnson on AB-109
			Don Elledge on sick day
1	2	1	4

Supervisor: Tom Wisherop	Date of Event: Douglas K Baxter	Supervisor: Chuck Raeder = Contractor Supervision	Supervisor:Mark Ayers
Work Group: RFMS	U & E	Work Group: Contractor Partner Supervision	Work Group: Refinery Management team
Date of Event: 24 Jan 2011	1/23/2012	Date of Event: 1/25/12	Date of Event: 12 Jan 2011
10	8	25	9
Comments:	Comments:	Comments:	Comments:
For those of us who have been around for similar events, it caused us to reflect on the past and reflect on similar situations. The emotions the operators are real (you can tell if you had every been in similar situations.) The timely communication brings you closer to the event and the feeeling of the operators. You wouldn't want this to happen to you and it make you think about how seemingly minor details can result in a large, unfortunate event. All of us need to exhibit leadership.	Nobody wants to see anyone get injured. Dramatic. Wake up call etc. were comments made.	This is more real. People recognized the significance. This is our refinery, it hit's close to home. This isn't hollywood. Everybody involved were actually interviewed - they took responsibilty for their actions. Radio video coverage was powerful - so was the fireball. Consider sharing during Gate 91.	Was everyone accounted for? Not knowing had an impact We need to get back to accountability at all levels. It seems that at Chevron there is a lot of responsiblity but accountability gets lost Because of the nature our our business we see the negative more frequently and have a sense of vulnerabily We got caught not do our job Reinforce that we are not focussed on basic safety requirements that need to be done in order to stay safe. and we have become complacent that it will not happen to me, we are lucky that it was less devastating than it was. Half the operators have never seen a video or have not been exposed to this type of issue

If someone was seriously injured or killed during this event, it would have been a more serious situation. More communication: All parties review of drawings and walk down systems (yellow line), tagged the open bleeder, increased lighting to see opening in the system, change procedure to introduce start up during daylight hours. Avoid assumptions.	One individual commented 'We know that plant start ups are one of the higher risks for accidents / failures / mishaps to occur...we should take this in to account..."	The timing could have had a major impact, knowing evacuation routes. Attention to detail, Sometimes we take for granted what we think is second nature. We need to go over things.. Never assume, this video shows we can't do that. Even though we may have done that in th epast. Also, Procedure wasn't followed all the way through. Filling out a tag could have prevented all of this, small things make a difference. We don't always know what's happening in the plants like operations - we need to know which way to go. Turnovers were also mentioned, they didn't do the turnover adequately. Supervisor wasn't comfortable of field turnovers. Are we feeling pressure to complete a turnover just so we don't run over time? Why not take a few extra moments. SWA could have been used by supervisor or someone else. Why start the units up at midnight? In day time it would have been visible. Lighting survey didn't catch this? Seems like procedure wasn't followed - field turnover was relied on too heavily. It's important to stay on the job to make sure that the turnover or task is completed rather than be in a hurry to leave.	We could have killed employees, if the deck was higher they may not have been able to get off the deck. Operators in a different area of the plant, closer to the bleeder. Could have spread or gotten off site. Fire monitors were moved out of the process areas in the latest upgrade, if they had not been moved they would not have been effective Lighting up the area, following the procedure, communication. Hazard recognition of leaving a bleeder open Field Turnovers are very scetchy at best if a bleeder or vent is left open it needs to be tagged
Critical tasks: Lock Out Tag Out, Knowing and reviewing procedures, getting proper Shift Turn Over,etc. This is an example where hazards could be missed due to lack of experience, or human error. We need to identify the valve normal status of open or closed, and any time the valve is out of it's normal status it should be tagged by following LOTO. Naturally ask, "What procedures apply?"	Folks noticed the workers in the video seemed "worn out" and "rushed" just prior to the incident. Lack of experience level refinery wide may have played a part. HO's spend too much time on administrative duties and less time in the plant with the workers. Having an extra SME or a start up overseer in the field whose sole job is to keep an extra set of eyes or referee during start ups and shutdowns was another idea brought forth.	Critical Tasks: All of them. Are we identifying hazards and consequences: We are doing our best - LPSA, we'll catch a lot of hazards and risks, we have to ackknowledge that there is also room for improvement. We can't all work safe 100% of the time. there might be a time when I don't see something. That's where SWA comes in . It's also important, as supervisors, that we make sure our people are trained up and using the tools. Fillingout JHA - we need to involve surrounding workers, no matter what company they work for. Be aware that complacency may come into play. Fatigue and pressure to get the job done. To do: share lessons learned, near losses, hazards - anything we've done to proactively share. (green cards, word of mouth, lpo's, swa, alerts and bulletins, - following a written procedure and have it with you - checklist, tags. physical board with all valves listed - open or closed status, verify.	Permitting Emergency Response Inspections - Fire equipment, vehicles, equipment. Road tests Training - Bonafiable and Varifiable. Train the way you are going to respond. All of our risk recognition tools need to be improved Establishing Command and ability to communicate with all responders we seem to be willing to manage more risk and justify it Every time we get 5 years away from an incident or a learning we FORGET Sharing the consequences of this incident with everyone is valuable

Yes, unless we start paying more attention to Operational Discipline performing every Task The right way Every time Always. More communication around, Shut Downs/ Startups, adhering to Lock out Tag out, and Risk Hazards Recognition.	Similar situations are often not addressed and ultimately leads to a problem. People do and should learn from mistakes and mishaps. Use tags to alert personnel of out of ordinary situations down stream / upstream that can serve as a final warning to the operator to avoid an incident caused by the possibly unknown out of ordinary situation.	Yes. Situations: this video reminds me to remove complacency. - Set a goal for beyond zero, keep experienced people (supervisors) who have seen how the little things can cause big incidents. Those people can be mentors. Be conscious of disciplinary action when people make errors. Refocus on what Incident and Injury Free mena ... make the Near Miss more of the focus, as much emphasis as an actual event. Remind ourselves and our people to be vulnerable in every situation. "Expect the unexpected and What if... " Help people understand to remove distraction of "pressure of a deadline" follow procedures. Notice people when people are getting excited/ distracted - remind our people to use LPSA, procedures, SWA,. Address what is distracting to our workers.	Every time we go out and review an Hot work or entry permit Every task needs to be directed at assureing we all make it to work tomorrow Every time operations calls and wants CFD to unlock a lock box because of a lost LOTO key (this should not happen) 1746 MOC's in Richmond in 2011 HOW MANY WERE NOT NECESSARY. How many were for convenience and reduced the safety of the personnel.
Ask the question, "Can the job be done safely?" In this case, it seems they were a couple of factors. Bleeder not tagged, no lights and very dark, and staging, inadequate turnover. Pause didn't factor into the equation.	Avoid a rushed turnover time. Safe park or place unit in a hold mode for a turnover period. A high D/P on a filter does not need to be changed immediately. It just continues to plug until solid. Generally, there is time to deal with a plugging filter without having to "rush right in".	supervisor could have used during field turnover moment. Lighting wasn't sufficient to verify valves, awareness of the hazards - / conditions. When procedures weren't followed. Check in with crew on comfort level of what actions are in place/ about to happen, take a step away from the work and see how people are doing. Assess fatigue, some people may need an extra day off - keep the focus. Make sure crew is fit for duty, have a conversation that is not work related - see what's happening at home. What frame of mind your crew is in. If people need time off - we give it to them. Be aware of whether the schedule is driving you - are you rushing through a step? As supervisor we can't allow those "hurry up" messages get to our people. Allow workers to do what they do. Some situations using SWA - downtime realted to working the issues, but not always slowing the work down. Get people comfortable with reporting issues/ things/ incidents right away - this is what's going on. Recognition, thank you for reporting ... share back alerts and bulletins - no names are posted. we want to prevent someone else from getting hurt. SWA - still a stigma , we can celebrate/ recognize SWA that was successful not a	Requirement to do a Proper turn over and communications Checking the whole system before putting it in service Adjust the lighting We need to understand the potential hazards of tasks and communicate them properly

Until someone experiences these types of incidents you feel it won't happen to you, but once it happens to you or you recognize the severity through a video like this, you're a changed person! We have to depend on our experienced employees to ensure these incidents do not continue to happen. You can't teach experience but experienced employees can reduce incidents.	Interesting comments ranging from "I am not doing anything different. I believe that I always work safely" to "Wake up call".	this is real. Every experience and detail is important because it builds our knowledge base. The interaction with family members was probably significant at home that evening. When you are reminded you are mortal - it make you think about the dangers of our work. We are vulnerable when we see the flames on the film. I'm taking SWA at work and at home - it becomes a mindset, it's working. Folks are not shy about talking about incidents at work and home. Sharing lessons learned or what's the worst thing that can happen can help someone else learn.	Remember Charlie video Experience gives you the opportunity to share with others We see all the aftermath of when things go wrong, we see what shortcuts cause and you try to pass that along. Strong willingness to use Stop work or to say no this is not safe
Yes, non-standard situations are always risking and almost have many undocumented sub-tasks because and variables Things change quickly. We need to naturally increase our awareness around standard and non-standard conditions, first by speaking up at the risk of being redundant. Having accurate drawings and mark-ups specific to an event that gets handed from crew to crew at shift change will help identify the valve normal status of open or closed, and any time the valve is out of it's normal status it should be tagged per LOTO!	Yes was the general consensus. Bleeder tags must be used as part of a LOTO. Not necessary for quick line of sight usage such as 'burpping equipment momentarily. Again, if a bleeder could become a "trap" for someone else later on then it should be tagged. A tag is a flag. The operator tag on the upstream service valve could note any downstream "traps" such as open bleeders...Beware...	yes. We can make improvements by reaching out to "industry", Others' best practices could offer learnings for us. Competitors should also benefit from lessons learned/ vice versa. BARC forum/ ICAST - we meet and try to standardize in bay area - key issue for Chevron. Any time it opened: tag it. Standardize - so we have less. Another set of eyes could have been helpful -- another operator from Cracking could have helped.	Every time we respond to an incident ie oil spill or fire it is situational. We need to use our training, procedures and experience to weigh the risk associated with they situation Every hot work and entry has a requirement but also a situational portion.

Perhaps there needs to be one person on each crew taking the lead in turnover and review of status - sort of like turnover of watch at sea (where are we at, where are we going, are there any hazards . . .) Minimize the gaps in communication - talk the job, review status, make notes and inform others of non-standard situations and risk.	Changing stack nox requirments.	Gaps in communication: whenever we rely on "word of mouth" or human error ... we have to have procedures/ standards to follow. We can't "forget". Checks and balances. Tag and reciever... Ensure that we follow procedures/ access to procedures./ mentorship for SSE (several opportunities), review procedures to ensure that they are correct and make sense to the people actually performing the jobs. LPOs/ JLAs, those are useful, RI owners can be contacted, training discs for RIs with quizes (they are out of date). CSF steering committee is working to update those. Safety reps will have work and assignments. Due date: 2-4 weeks.	For more than 5 years we have been using an out of date electronic TO process Lotus Notes. We were never transferred to Filemaker Pro. We are now taking our own path to use a records management system Training communications are not always consistent Security Briefings from PPS and Chevron Security
Yes, new programs, and updates to processes and software require new procedures. E.g., RI-609, RI-368, M:\drive, Piping ACD . . .	Falls on Trainer. HO's should decide.	yes. Revisions are ongoing. Every job is not always the same. If have a procedure that is not right - do we know how to update this? Yes. SSE Mentorship: can Chevron EE's mentor Contract Partners ... in some situations yes.	Yes Assuring there is a process to assign and account for the change, communicate the change and update the procedures etc..

Absent:	Processing invoices, salary treatments or contracts / POs	Absent:	Absent:
Nakia Washington (discussed video and questions on 1/19/12)			
Charlie Jaimes (discussed video and received written input on 1/24/12)			
Shad Rahman			
3	0	0	0

Supervisor: Patrick Roth	Supervisor: Scott Smith	Supervisor: CJ Sanchez	Supervisor: Johnny Pak
Work Group: Hydro A crew	Work Group: Oils Planning & Energy	Work Group: RM Machine Shop and Major Machinery Gr	Work Group: Hydro Leadership Team
Date of Event:1/26/2012	Date of Event: 1/25/12	Date of Event: 1/25/2012 at 0930	Date of Event: Thursday, Jan. 19, 2012
20	15	31	8
Comments:	Comments:	Comments:	Comments:
1.Reminds us what can happen, because it has been a while since a major incedent. 2.The true potential hazards out here. 3. Good thing no one got hurt. 4. There is no room for error in this bussiness.	Very impactful, especially knowing the people involved; Even not knowing all the people it was impactful; Difficult to watch; "Gut-wrenching;" Very well done; Can relate to the "that would never happen to me" line by one of the participants; Very impressed with personal accountability and integrity of the participants	Video testimonies reinforces our understanding of the dangers and risks we face each day at the refinery! It make it very real because we know and work along side of these folks as both co-workers and friends. It was obvious everyone involved was deeply moved and concerned (as our group was) when the realization and question of "whether everyone had been accounted for" came up. Those involved took ownership of their actions.	- "Reminded me other of other incidents I've been in." - "Listening to the radio traffic made it real / impactful." - "This was an incident that could have been prevented." - "The people in the video was sincere." - "A good reminder that there is no guarantee that we all would go home at the end of every day." - "Reminds me that I take it for granted that things run well 99% of the time." - "This video was much more impactful and the new bulletins we've gotten regarding the rig fire in Nigeria (even though 2 people lost their lives in that incident)." - "Agree that there are 'monsters in the pipes'."

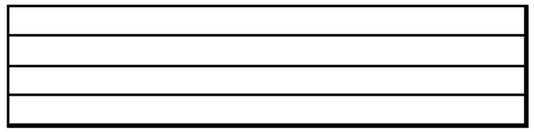
1. If someone had gotten hurt. 2.LOTO list does not look like it was used properly. 3. Stopped job, improve the lighting. 4. Improve the LOTO data base.	Anybody could have said something about the lighting in the area; Any of the 6 people involved could have slowed things down	As for being more serious the group agreed on "Timing"...as the folks involved stated just moments before many more people were actually in the area and they would have been closer to the fire when it started. As for prevention it was "following and using the existing tools that have been made available" to "not only relying on memory but having reference documentation in hand" to "using a tag" and "understanding the changing condintions during plant start ups"	IT COULD HAVE BEEN MORE SERIOUS IF: - "... the bleeder was pointed in a different direction." - "... the Operators didn't move/respond as quickly as they did." - "... we were just plain LUCKY." IT COULD HAVE BEEN PREVENTED IF: - "... the line was walked out properly." - "... we followed our procedure / SWP." - "... a tag had been hung earlier that day." - "... the crew had a tailgate at the start of the shift discussing the critical jobs for the shift." - "... the culture existed that each individual felt the need to double check all steps." - "... SWA / PWA was used - i.e. poor lighting; field turnovers, etc." - "... it was made clear that only one person was accountable for putting the filter back in service with other assisting as opposed to everyone helping and no one accountable."
1.Everything we do out here is crtical and hazardous. 2. Better training to raise awareness to newer operator the hazards.	Communications for planners: don't leave things open-ended, confirm understanding of plans and directions;	Most common theme was "LOTO" and ensuring / double checking that the energy is isolated and that a job aide, procedure or reference is followed.	I framed this question as the critical tasks that my Leadership Team members are involved in. - Using LPSAs and stewarding all other LPS tools. - Coaching and stewarding by asking and not by telling. - Stewarding the use and managment of our procedures / job aids / SWP / routine duties. - Managing communications tools (turnovers, safety bypass request database, etc.) - Managing our PSM processes (PSSR, MOC, PHA, etc.) and ensure we have the right people involved. - Be sensitive when "pushing" work to ensure we are not driving the wrong behavior of people rushing and not performing work with good quality. - Need to continue to work on holding people accountable to perform with excellence.

1. Always potenial 2. Te work "fire" over radio triggers the level of urgency. 3. Working with hot feed stocks, 4. Fresh air jobs. 5. anytime we are opening something to atmosphere.	Highlight abnormal events; extra communication	Yes hazards are everywhere...Usually higher risk jobs but as a whole the group has made better progress on understanding that routine work and tasks need just as much attention and risk management...As for doing things differently its mostly managed with the conversations that take place with operations during our JJSV, JHA and or conversations over the job with the supervisor and head mechanics etc...	- ABSOLUTELY !!! - The same incident happened at RLOP the same night with a bleeder being left open with a lube oil filter was commissioned. The only difference was the severity of the consequence. The root cause was the same behavior of not double checking all bleeders. - More focus needs to be put on critical, seldom done tasks. - Need to help people understand the full severity of consequences. - Need to ensure there is more oversight and experience when performing critical work.
1. Didn't recognize the hazards 2. Too dark in area, did not use pause work autority. 3.Doing critical tasks at turnovers, delay them until after turnover. 4. Field turnovers are sometimes more valuable, get more infor during turnarounds.	Lighting; turnovers; double check, triple check;	At the shift turnover when conditions were changing and the potential for missing details was higher.	Stop/Pause Work Authority could have been used: - when lighting was highlighted as an issue (may have been like this a long time) - when the OA heard that turnovers were being done in the field - during PSSR / yellow lining - could have tagged the bleeder To promote the use of S/PWA: - need to continue to encourage folks to use it - need to look for examples (big and small) and positively recognize folks using it.

1. Don't rush 2. Contine to operate safely.	Not so much pressure on meeting schedules, even subtly; "an extra hour or day doesn't matter"; sometimes pressure to meet schedule is self-imposed and really doesn't matter in big scheme of things	Once again just knowing those individuals and the impact it had on them and their families underpinned the importance of committing to always doing our work with enough understanding, competence, confidence and a dose of vulnerabilty to know it could happen to me / us if we dont fully commit to using the tools...it comes down to our behaviors and the relationship we build with other groups, operations, etc...	- This incident did not change my approach but rather reinforced what I need to continue to do. - This generated a renewed focus. - Makes me think of what I do and what consequence I could cause if I don't do it right.
Yes Proper bleeder tags. Yes When we do OST and hot alignments we modify LOTO's raising the risk of the job.	Oils planning can develop contingnecy plans, so that an extra day on a shutdown doesn't matter; don't impose unneccesary urgency (although some urgency is still needed)	Yes both situational and non-standardized. It could happend in the field as well as in the shop...examples listed were incorrectly assuming a LOTO was done correctly and not doing a job walk, JJSV for compressor work, EBV and OST work, not reviewing SIS, EDS, and MSDS sheets prior to opening up equipment whether in the field or when tranferred from the field to the shop for repairs...and becoming complacent with operating shop machinery or becoming distracted while doing so.	- Need to focus on ALWAYS following our processes and using our tools. - Should have been clear that the unit was now "live" and our SWP of tagging all open bleeders should have been used. - Need to always perform LPSAs; including work performed duirng day shift when the bleeder was first opened.

1. Didn't know status of LOTO situation. 2. Look at procedure, do we have too high of temps for deisel in process?	"Assume nothing!"; "be repetitive"; OD, SWA, Sense of Vulnerability	Many improvements have been put in place around using documentation, masterchecklists, job aides, procedures. Wrking around rotating equipment daily enhances our focus to not become complacent however improving processes is always an option, as is getting better at risk recognition with, OD audits, JJSV's, JHA and JLA use, tail gate safety meetings, LPS meetings, monthly safety meetings, LPS bulletins and alerts etc...but it all comes down to using these tools during our LPSA's	- Yes, there are gaps as indicated by our incidents. - Need to ensure proper oversight. - Need to work on being better at proactive communications. This includes acknowledgement that a communications has been received.
1. We depend too much on EOM writer, 2. Need community discussions on crew to discuss changes to procedures. 3. More eyes looking at it the better.	All positions in Oils Planning have job aids/desk manuals; all could use updating as routine improvemetn	Yes we have made improvements but we need more experienced resources to make the right step changes...and to build on the documents we currently have.	Our team members were not aware of the criticality risk matrix for procedures in our Refinery's EOM Guidebook. Definitely a gap that we will work to close.

		1. Plant start ups and shut downs are not routine. 2. Really look out for one another 3. **Many more good radios and batteries need to be purchased.** 4. Don't assume anything whether your restarting a job/task or taking over a job. 5. Verify each shift what conditions changed. 6. Check in and out of the plants everytime. 7. This refinery is our livelyhood and we all play a important role in each others safety. 8. Its our reputations. 9. Its a serious business with all the pressures, temperatures, rotating equipment, electrical energy etc... 10. Every one need a balance of competence, confidence and vulnerability. 11. Safety isn't a game. 12. Read the paper work.	
Absent:	Absent:		Absent:
Lamonte Campbell	Dami Dawodu (on leave)	**Absent:**	
Beau Liening	Laura Waldrop (on leave)	Mike Terrell	
2	2	1	0



Supervisor: Kristy Hart / Tony Vink	Supervisor: Dan Mason	Supervisor: Dan Beaton	Supervisor: Tom Dipalma / Dennis Decker
Work Group: Analyzer crew	Work Group: Quality Management Group	Work Group: IED DED	Work Group: Safety / LPS / TOP
Date of Event: 1/24/12	Date of Event: 28 Jan 2011	Date of Event: 25 Jan 2011	Date of Event: 1/24/2012
17	8	11	14
Comments:	Comments:	Comments:	Comments:
Some mechanics hired in at the same time as the operators in the video. Eye opener.	• **Good Video** • **Reinforces bad things can happen even to the most qualified individuals** • **Obvious concern about co-workers** • **Made it personal** • **Reinforces OE commitment**	Lack of a sense of vulnerability prior to event. Video shows a more human side of these operators and that they are not impervious to errors and mistakes. Routine experiences create false sense of security that you will never do the job incorrectly.	> Was touched by the human side of the event. > Video put you in the middle of what was happening. > Good to hear the event from he people involved. > Seeing the fire in the video made it powerful. > I couldn't help thinking "how many people are there".

If plant start up had taken place earlier the possibility of more people being in the area was high. If a checklist or procedure was used the open bleeder would have been identified. If SWP had been observed the valve would have been tagged.	**• Some said…"Not Much"** **• Someone could have died** **• Could have been a larger fire** **• Could have been more injuries** **• Better lighting, communication, loto, behaviors, more checks, following procedures may have prevented it**	Turnovers conducted in the control house where there is less liklihood to miscommunicate. Perform complete LOTO including bleeder valve. A tag on the valve would have brought attention to the absence of a bull plug. This incident could have been way worse if Operations did not react quickly and remained composed to hit the EBVs.	> One person wished they had rechecked one more time. > It's is critical to check things for yourself. > More lighting may have helped. > If we had a fatality, we would be having a whole different conversation.
Anytime we work with Calibration gas cylinders, open pressurized systems, high temperatures we must maintain our awareness.	**1. Follow Procedures for every and all tasks. Minor items can easily become major incidents. Reinforce "Always".** **2. Probably don't always identify hazards & potential consequences. LPSA's will help.** **3. It was good that Support Groups were not in the unit when the fire occurred.**	Field LPSAs are for our own protection and those around us. Know what and where you will go 100% of the time you are in the refinery if an emergency occurs. Our critical tasks are fail-safe instrumented systems to meet SIS requirements. We must field verify drawings every time to ensure materials are ordred correctly and without recycle.	> Communication is critical. > Hazard recognition, using the tools we are given. > How well do we identify the hazards we have.

An event like this could happen to anyone. This is why we need to stay focused the task is routine. When performing unusual tasks a greater level of attention is given.	**1. Yet, it did!** **2. Non-normal tasks! Routine can also get any of us.** **3. Avoid putting yourself in potentially dangerous situations. Do your LPSA.**	Zaid's welded contactor experience in FCC with following fire demonstrated the chaotic nature of an incident and how his LPSA to determine the isolation before he acted may have saved the unit from burning down. Brad writing switchcard and understanding common failures and working around them.	> Each group in the refinery can impact other groups by not recognizing hazards with what they do. > Critical that we involve the right people in our decision making. > Use Stop Work Authority when there are questions about risk. > Train on contingency for emergency situations.
There were several times that the "Usual" did not take place. Field Turnover, recognizing that conditions after shutdown are not the same as when routine tasks are performed.	**1. Before commissioning, during turnovers, noticing lack of tags or bull plugs on bleeders** **2. Follow Procedures; Use SWA; Don't assume**	During shift change made extra efforts in communication Proper LOTO on bleeder to draw attention Silvano using SWA on field turnovers.	> Use STA to address the area that was too dark. > STA to address field turn over's. > We need to publicize when STA was used. Share good examples. > Promote greater understanding of what STA is. > Ensure contractors feel comfortable using STA.

Emphasis on doing the simple things like signing in and out of a plant even when you plan on returning. Following procedures step by step. No cutting corners on PPE.	• **Makes it personal** • **Could have happened to any of us** • **Learn from this video, share it globally, it could happen to anyone** • **Increase awareness**	Discussion about second degree burns experienced Discussed feeling of guilt for dayshift Sharing with coworkers where you might be going in the plants. Accurately write your plant location in the sign-in sheet.	> Constant reminder to stay focused. > Maintain situational awareness. > Be aware of our own vulnerability and what causes us to think that it won't happen to me. > Take the time needed to do the task safely. Don't let the excitement of bringing up a plant take away from your focus.
Group agrees that any time you walk away from valves that are put in a state that is not usual such as isolating an analyzer or opening bleeders to purge units there should be at a minimum a tag.	**1. Tags are believed to be required for Maintenance Work. Not clear about what Ops procedures require.** **2. Walking away from an open bleeder leaves a hazard or trap for others. If walking away; tags, plugs must be addressed** **3. Different opinions on this question. Needs better clarity.**	ran out of time to discuss.	> CAL OSHA visits are a great example of being sure there is a process in place so everyone knows how to handle their visit. > We need to rely on the processes and procedures we do have in place.

Log books located in each analyzer shelter provide excellent communication the group recognizes the need to make entries that are complete and descriptive any time work is performed.	**1. PSSR Process not always detailed enough** **2. LOTO not always perfect** **3. Turnovers not always good enough or thorough** **4. MOC's not always done** **5. Procedures don't exist or are not followed** **6. Don't always Learn from incidents or mistakes**	Lack of area lighting. Project turnover, added man hours Communication with HO when signing into a plant.	Ran out of time to discuss. We we challenged to reflect on these questions and share concerns with our supervisor.
Routine maintenance is currently reviewing existing procedures and the analyzer crew has identified several areas where procedures/guidelines are needed and are taking steps to have the written.	**YES and YES; Need to develop a Team to review and make time to update procedures so we don't have incidents in the first place. We should revise procedures if incidents are associated with those procedures or one doesn't exist.**	JLAs project flow chart Sharepoint site with engineering tools and guidelines. Chevron engineering standards.	Ran out of time to discuss. We challenged to reflect on these questions and share concerns with our supervisor.

Absent:	Absent:	Absent:	Absent:
Johnnie Conner (vacation)	Norm Horton		
	Doug McClintock		
1	2	0	0

Supervisor: Steve Klasnich	Supervisor: Sergio Briseno	Supervisor: Haflich, Eileen	Supervisor: Mickie Jensen
Work Group: Strategic and Business Planning	Work Group: D&R STL -	Work Group: Refinery Capital Projects	Work Group: Refinery Capital Projects
Date of Event: 17 Jan 2011	Date of Event: 1/26/2012	Date of Event: 26 Jan 2012	Date of Event: 25 Jan 2012
11	14	9	10
Comments:	Comments:	Comments:	Comments:
Emotionally powerful - gut wrenching Personal impact of those involved - i know those people... We know people who have sons and daughters that now work for Chevron - could have been one of them The stress on those involved is evident - coupled with being tired from the TA We were very blessed at the individual were able to share their story..... and the impact is much broader than jsut those directly involved	Good discussion – pointed out how the smallest things we miss (bleeder) could have such a large impact. Video is different - must be because we know everyone involved.	Paul: Makes you think of the bigger things. Turn-overs, you want to capture the big picture right away; at the same time pay attention to the minor details. Eileen: Compared turn-over to driving, (ie. routine activities). When you're tired it adds a layer of fog to your thoughts just like the long hours and weeks of the 4CU T/A. Fatigue was a factor and should be considered in the next turn-over. There are short meetings in between turn-overs. A solution could be to bring on the fresh crew earlier in order to absorb more information.	Could relate to the interviews - have met and worked with the operators at D&R on projects There really could be a "monster" in the pipes Realized miscommunication can be lack of communication Startup & shut down time periods are often more dangerous

What could have made this worse larger vapor cloud people egressing could have tripped / fallen / been more trapped What could have prevented this incident Better communication / turnover Taking more time to look things over it was after the holiday / TA - fight the urge to "want to get it done" work process - getting the bleeder closed (tagged, bull plug?)	More serious – injury/ death Prevent - Take your time, relax – step back and take another look, no need to rush. Not relying on individuals, assuming “they got it” .	Kurt: Everyone instantly knew what the problem was when the fire broke out. Someone could have been seriously injured or killed. Better inspection of the line could have been performed. Task should not be turned-over verbally.	More serious: Bad housekeeping Monitors malfunctioning Portable hand lamps not available What could have prevented entirely: Clearer communication between shifts Bleeder should have been tagged or on "open bleeder list" Improved turnover between shifts Look at entire piping lineup during turnover
Ergo on personal safety - we can take our breaks, use our sit / stands, do evaluations We prepare information that decision makers use - wrong data can lead to bad decisions on projects - can cost us as much financially as the CU fire	• Check your work, never assume • Hazards identified (dark area) not a normal condition to swap filters. Stop work authority not used, perfect example.	Joe: There should be an independent double-check during a shut down or start up(Two operators checking things out independently). Don't take anything for granted. There should be more attention given to procedures with potentially hazardous situations.	How it applies to this group: Concentrate on the last tasks as seriously as the first tasks Don't over look the details Always follow procedures

SWA could have been used: lighting could have been addressed Field Turnovers - could have been better - maybe a flag? Work processes around valve tagging - shutdown to live plant Need to take that extra time to look over our work	Incidents can happen to anyone at any time. It is up to each and every individual to fully understand the scope of work being conducted. Should never hesitate to stop or pause work if a question or concern comes up.	Marc: Incidents can happen at any time. If you are not sure of the plant conditions going on, a incident can occur. You need to always be aware of the hazards surrounding you. Joe: Scenario: was at the gas station using the gas pump with the automatic fill latch and when he went into the store the gas overflowed (1/1000 change). David: If he saw someone running, he would run in the same direction as the person running. Know where your shelter in place spot is located. Kurt: If you're in a unit that makes lots of noise and if that noise changes, that will trigger your attention automatically.	Fill out a "Green Card" Incident review acts as a reminder for future practice If it is being reviewed by others, more attention to detail is achieved
Question things that look odd or out of place Take drills and warning sirens even more seriously Take that extra time to look over and review work - soak on it over night before releasing the work	• Hazards identified (dark area) not a normal condition to swap filters. Stop work authority not used, perfect example.	Paul: Lighting? If it was the darkest spot in the plant, should more lighting have been present.	Oncoming shift operator could have asked for a more detailed turnover Outgoing crew could have required tagging prior to leaving shift More lighting could have been requested for startup conditions

Tools we have to use Self risk assessment Pause and Stop work	"Alerts and Bulletins" you can always relate these to possible incidents that could occur at work or home	Marc: Anytime you check into a plant, it's safer to check the Unit's Orientation cards, know what to do in case of an emergency. Ensure that the people you are with know the same information. Joe: Assess, Analyze and Act should be emphasized and should become ritual.	Reminder that it can happen to anybody Similar conditions could be found in other areas of the plant Willing to take the time to conduct a complete view
	Use a bleeder tag – every time, regardless if you're in the area or not. Takes 2 seconds to tag a bleeder.		Draft complete EWO documents for all projects

Absent:	Yes, at times. These are large units – the “hot jobs” always seem to get the most attention, items that are small (water/ steam leaks) seem to be overshadowed, forgotten. Shift work also makes it difficult to follow a job until its completed.		Interdepartmental meetings are important Need to highlight small items that can be overlooked Look for root causes before treating symptoms
	Working shift work, you may not come across a procedure for several months – depending on what is required. When a procedure is used, crew will have a meeting – discuss steps, should a crew find a procedure that needs updating, it is marked with explanations and turned in to trainers.	Our procedures are works in progress and always need revising.	None known at this time - will keep an open eye for this condition

x - follow up complete	Absent:	Absent:	Absent:
	Storey	Keith Brooks (Project walk down at F-3930)	

0 1

Supervisor: Charmaine Ferraz	Supervisor: Kelly Campion	Supervisor: Pat O'Neill	Supervisor: Greg Lowe
Work Group: Environmental Lab	Work Group: HES CFD C crew	Work Group: D&R D Crew	Work Group: B&S/U&E Maintenance
Date of Event: January 26, 2012	Date of Event: 27 Jan 2011	Date of Event: 28 Jan 2011	Date of Event: 1/26/2012
10	6	15	14
Comments:	Comments:	Comments:	Comments:
The sound of the radio communication made it feel real. I know it's hard, but good to see people owning up to their mistakes and being able to talk about it.	A little complacent, this has happen several times before, it is easy to become complacent, it is a dangerous business, it makes it come home when you watching people that you know. Take and extra 15 seconds to scan the general area to get a feal for the hazards We have moved away from taging all open bleeders No procedure available for filter changes during start up Original positioning of the apparatus may have been too close after discussion with Operations, Engine was repositioned How many of the operators involved have been part of a previoius SD Critical but routine task, their could have been more personnel around and not asked to leave This was not a routine filter switch, but it may have been treated as one vertually the same incident occurred a few years ago at ESE, how was it communicated to our operations personnel? The process for communication of changes, occurrances at other facilities, does not seem to be robust enough.	The newer operators present acknowledged that they had not seen an incident of this magnitude before and had been of the mind that these things only happened "someplace else". The video made it clear that this can (and did) happen right here to people we know."	I think it made it real to them. They felt it could happen to them.

More serious: People could have been injured or killed. Grandfather worked at (another) refinery in bay area before safety was high priority and many major events occurred. One of his coworkers was killed on the job. He was just lucky he was at a medical appt at the time. Prevented: Better turnover & due diligence; secondary check or peer review.	any one of the operators being in just a slight different location, 6 feet closer to the bleeder if personnel were not accounted for it changes the focus and response of the Fire Department Recognize all the differences in the task that truly made it not routine - lighting, startup not a running plant, no procedure Field turnovers are not necessarily a problem, the fire service does these and they must remain thourough. The only change is the location not the quality	This bleeder is in an area where a number of people had recently walked by. Timing could have resulted in serious injury or worse. The best way to have avouded this situation entirely would have been to close the bleeder once the job had been completed.	More serious: There could have been fatalities or worse. Prevented: We discussed the need to do quality LPSA at the start of every task. This may have identified the need to review the status of the vessel.
All tasks in the lab, all the time. CEL samplers must check in (not just sign in) with HO when pulling environmental samples at other plants. Hazards and consequences should be discussed during training.	Involvement in all SWP- Hot Work, Confined Space assuring two in two out in all IDLH emergency responses Routine Tasks such as turnovers, vehicle checks can be very critical There is subjectivity in many of our activities, we can improve our specific procedures.	The use of bleeder tags is of utmost importance which was demonstrated in this incident. Use of bleeder tags does not guarentee that the tag will be noticed, but it does greatly increase the odds.	Every task needs to be done the right way. Quality LPSA are needed at the start of every task to identify and midigate hazards.

During analysis and especially hood maintenance, must understand the risk of fire due to highly flammable solvents (hexane, acetone). Samplers always go to field sampling stations with an area operator. Especially during shutdowns or adverse weather.	we have situations where we can leave valves, bleeders etc open. The pressures and volumes are enough to cause both damage and injury. Assure daily checks are conducted, valves and bleeders out of service are tagged properly. Timing on repair of critical valves need to be improved. Track all 1201's, repairs etc for all apparatus and critical equipment. Fully implement the RMS process to address tracking equipment.	An incident like this definitely CAN happen again. It was ststed that everyone in D&R got a "wake up call" from this incident and that now even the junior operators are aware of the possible consequences of not following LOTO guidelines and that these guidelines will be more closely followed as a direct result of this incident. Also it was stated that operators will be more open to checking each other's work.	They felt that if they didn't pay attention to what they were doing or what was going on around them that it could happen to them. Follow procedures and SWP. Do quality LPSA.
Could have paused for better lighting. Or pause for better turnover. Have to be free to do the "unpopular" thing (like request a non-field turnover); some might ostracize/give a hard time to person using SWA.	once the situation was recognized as unusual they should have stopped to assure they had addressed all the risks. Lighting, field turnovers, it seems that they did not recognize this as being an unusual situation or a hazard Continue no negative consequence to stopping work for safety reasons	The possability was discussed that people may have been reluctant to say "are you sure you checked that?" for fear of seeming to question another operator's competance.	At the start of the task the use of SWA or LPSA could have been use to identify any possible hazards.

Another incident (potential fall) could have severely impacted self/family. Always ask/check about known nonroutine situations in the field, don't assume anything out in the refinery.	a Battalion Chief making a statement to a crew" I do not every want to have to call your family to tell them you have been hurt or killed" because you did not take the time to put on your turnouts or I did not support the policy having kids work in this facility has a major impact. would you let one of you kids perform a task that was not properly checked out. would you let you kids play in this playground? coworker at another facility drove home tired, crashed and died, left a family behind. never drive tired Lead by example	Tthis incident brought home the fact that it could happen "Here'". It was noted that in recent years a lot of these type incidents have happened "other places" and this brought it home that D&R is not imune to this type of event.	Half of this group has not see a oil refinery fire up close. I think by the look on their face this was a wake up call. They agreed that taking the time to identify any hazards is needed to prevent incidents.
Didn't realize risk, may have assumed the valve was closed based on turnover; use LPSA and always confirm.	Yes, following your procedures up front can assist even when a situation occurs that you have not specifically trained for.	The operators (especially the senior ones) stressed that the expectation is to use a bleeder tag EVERY TIME. The senior operators all had examples of past events when bleeder tags were NOT used and serious consequences or near misses resulted. One item noted was that we had recently been running short of bleeder tags and that perhaps a bleeder tag was not put on the bleeder since none were readily available.	Many jobs in routine maintenance are done over and over. They use SWP's, RI's and training to accomplish the tasks. Mechanics need to treat very task as if they are doing it for the first time.

	Yes - We have an older paper and Lotus Notes process that needs to be addressed. We have identified a new Records Management system. This will cover turnovers, inspections, reporting and records	In the discussion it was pretty much agreed that "field turnovers" are sometimes not only acceptable, but may be preferable. The big factor mentioned was that there may have been too many people involved with the same task and assumptions were made that "somebody else checked/did that."	The group had no comments.
SOPs required for our lab work, always need review and revising. BOPs and Job Aides may be handy for quick reference or miscellaneous support tasks; but should be handled in a controlled way (DMT). Need input from analysts - always involve the right people.	Some of the diffrences between the Refinery and Research procedures are captured in job aids, training but not in a formal procedure	There is an existing job aid for this and evidently following it closely may very well have avoided this event.	Maintenance have very few procedures to do routine work. Mechanics use Refinery Instruction, Safe Work Practices and training to accomplish work safely and proficiently.

Absent:	Absent:	Absent:	**Absent:**
	Scott Joseph		

Supervisor: Don Kinkela	Art Mares RER Team Lead	Supervisor: Rick Dozier	Supervisor: JJ Stewart
Work Group: Designs Engineering		Work Group: GMG	Work Group: A Crew Cracking Operations
Date of Event: 25 Jan	1/30/2012	Date of Event: 1/31/12	Date of Event: 30 Jan 2012
8	16	52	26
Comments:		Comments:	Comments:
Impressed by the sense of vulnerability. Makes you reflect on projecs you are currently working on, testign equipment, making sure proper sign offs are in place, wiring. Reminder of what we need to do. You can never check things enough. Lack of lighting where the incident took place. Field turnover.	It gets your attention and lets you know anything can happen at any time in any plant if you let your guard down. It gives you a dose of reality	Puts things into perspective. Others actions can affect all of us. It was good to hear from the operators involved. Doing it right the first time is very important, as you might not get a second chance. Get the right tool or seek out additional help to make it easier on your crews and make it safer.	* Importance of doing things safe all the time * use all LPS tools. * Think about tasks before you go out to perform them, utilize procedures and job aids. Teamwork. *Video makes it more personal, several knew the people involved and it made them think about it.

Written procedures, walk around during turnover. Turnover procedures need more detail. There could have been people seriously injured or dead. It is very sobering imagining and visualizing the incident. Independent egressed points. If operator would have not turned monitors may have made it harder.	It would have been even more serious if the operators were not atable to get off the deck before the fire started. Luckily, they heard the gas leaking, and also saw a vapor cloud and evacuated. It could have been prevented if the bleeder valve had been tagged.	A check list, with double checks by another person.	* Have to walk out the job. * Lighting issue fixed. * Always tag bleeders. * Follow procedures completely. * Turnovers - time to do it right
LOTO, designing, ARC flash sudies, installing new equioment with correct specs, pre-commissioning and commissioning, PSSR, instrumentation, testing device, electrical safe work practices. Installing relays, risk mitigation planning, communicate with third parties. Risk recognition, involving the right people and making sure people know who to contact. Proper inspections and endorsing.	LOTO must be done every time. Communication during turnovers. Tags for operator tasks. In this instance, the unmarked bleeder was not tagged so the consequence was not fully understood.	Make sure all valves are checked. Field turnovers add complication to turnovers. Adequate lighting, didn't scope entire job prior top adding product.	* Anything we do needs to be done right every time no matter how small or redundant if might be. * All tasks should be thought of as critical to perform correct every time.

When energizing, cogen work, shift change/turnovers. Abnormal situations, temporary sitautions.	Yes. At the end of long shutdowns we should take a step back and confirm we are following all required procedures.	Yes. New co-workers, unfamiliar work, different job, then you have ever done before. Stop work untill all questionable items are corrected or addressed.	* Yes * High risk activities * Perform LPSA and mitigate any risks
No good lighting, field turnover could have been stopped, everyone in a rush.	Because it was very dark, the operators could have asked for better lighting on the filter deck. This may have made it easier for the operators to see the open bleeder. People need to understand that they have the power to stop a job if they do not believe it is proceeding safely.	They could have used PSWA when they first noticed it was very dark, and came up with a method to fully address the situation. Should have asked other operators to double check everything.	* Do not rush into work being done, remember there is always time to do things right. * Make sure folks understand that they have the authority and obligation to use Stop/Pause work to help insure safe and incident free operations.

Need to think about what are the bad consequences that can happen. "What's the worst thing that can happen". Safe work practices taken home. Sharing incidents across the company. We are all vulnerable. Protecting yourself with tools at home.	It opens your eyes and reminds you that you must do every taks the right way every time.	Have an emergency meeting place predetermined prior to starting job, other than the evac location to meet back up in the event you get separated, so you can get a head count quickly .	* Always prepare for the worst, risk is inherent in everything we do out here.
	Yes, because of different procedures base4d on who is doing the work during shutdown vs. routine work situations. A bleeder tag should be used everytime a bleeder is opened and not just when the operator walks away.	Yes any valve out of normal position should be tagged, and logged into the log book, with signatures confirming that the valve has been retruned to normal position.	* Yes, all bleeders should be tagged if you have to walk away from the area for any reason. * Multi tasking might cause someone to start a task, walk away and forget to return to complete the task causing an incident. * Procedures and checklists should always be in hand and signed off as you go.

	In our work, there are situations where there is potential for gaps in communication if we do not keep maintenance and operations fully up to speed on the condition of machinery, such as “E” use only. We need to communicate to those using procedures to let the owners of the procedures know if changes need to be made.	Not consistant while doing field turnover.. Both shifts should go out together and discuss what has been done, and what needs to be done.. Use a check list for the task and more consistant proceedures. Need to think more about what your doing as it is not a routine process. None at this department If you are working with somethingunfamiliar you should get the right people involved to assure the job is done correctly the first time. Maybe some sensors or engineering controls should be installed. Peminant lighting should be installed or get a light plant before attempting work. Maybe run a safer product through , such as cooler products to assure everything is ready for the real hot product.	* Incomplete and inaccurate written turnovers. * Need to keep turnovers up to date and accurate. * Yes, which can be caught by LPO's, MOC's, Procedure reviews etc. * Make sure all red lined procedures get turned over to trainers to get updated in EOM.

Absent:

Absent:	Absent:
Cindy Osbun Sick lv.	Gary Kramer
Charles Boll Vac	Federico Comandante
	David White
Gabe Anchando Petrochem	
Laura Guzman Petrochem	
Scott Manglona **Petrochem**	
Alejandro Mendoza Petrochem	
Andrew Powell Petrochem	
Juan Roman **Petrochem**	
Salvador Sanchez Petrochem	
Rich Taylor Jr. Petrochem	
Mike Zine Brand	
Felipe Vega Brand	

Jesus Castillo Brand

Supervisor: D. Street, P. Mitchell, A. Lowell	Supervisor: **Danny Bernardy / Kevin Taylor**	Supervisor: Hank Angeli	Supervisor: Chad Boseman
Work Group: Hydro/Crkg Maint.	Work Group: **OTR - TIMEC**	Work Group: Chevron Fire Department D Crew	Work Group: Mistras
Date of Event: 1/25/12	Date of Event: **1/30/2012**	Date of Event: 01/18/2012	Date of Event: 1/31/12
39	20	5	19
Comments:	Comments:	Comments:	Comments:
It was scary. We were lucky with another fire that no one was hurt/killed. It could happen your area.	The biggest impact this video had on our group was actually seeing the fire and hearing the radio transmissions as they happened. Several guys agreed that it hit home when they were reminded that incidents like this can happen to anyone, at anytime out here.	Interesting video. Good reminder to pay attention and have situational awareness. Little things can and do lead to big things. We at CFD are aware of the issues when our product do not stay contained. This is why we complete processing permit process to the letter to ensure employee safety	anything can happen any time. Our industry is very unforgiving. (reality) Monster in the pipe wants to get out! Eye opener. Who got hurt...start thinking about who it effects.

A death. Better communication, more lighting in area, thorough walk of the system, bleeder tags installed, use of Stop Work.	The outcome of this incident could have been significantly worse if: one of the operators had been sprayed with the oil and then burnt, or if anyone had sustained more serious injuries. The outcome could have been prevented by using the LOTO procedures and by better communication during the shift change.	Greater loss of lives and/or property. Could have been prevented entirely by proper thorough turnover . Better lighting in the area could have made the equipment easier to inspectand and/or notice a change? Proper use of tags could have assisted in safe operation.	following procedures, they are there for a reason....have to be adheared too!!better lighting...field Tuirnovers, knowing evacuation points. Monitor was stuck
Permitting (entry, hot work, ect), Loto, Stop Work, when working in the dark request better lighting.	Critical Tasks : Walking LOTO's, verifying isolation points, and checking all bleeders. We can better identify job hazards and potential consequences by double-checking all crew member's work - having another set of eyes.	Use LPSA tools. Follow RIs and work procedures and job aids. Our organization has - pretrip, permitting, preplaning, training, Policies and SOGs that identify hazards and keep our operations safe.	lighting and decion to start up in dark. Tagging valves. Field turnovers, things are missed. Every task the right way every time.dont always fully analyze. Hazards can always be overlooked, don't always have the knowledge to identify potential for hazards. involve the right people in assesing hazards.

Yes it can. This reminds you that we work in a dangerous place. Don't get complacent with your task. Are you deviating from R-9900 (Live Relief) ect. Raise your awareness and have better communication. Use proper radio ediquete during emergencies. The Repeaters stop working for ~1min.	This incident can absolutely happen to any one of us in this OTR group. Most of the jobs we do are in live plants and are critical relief jobs, so attention to detail is imperative. This group has a strong team oriented mindset which benefits in these situations by checking eachothers work.	unfamilar jobs. Tone downs. Involve the right people. Propper communication. Clear expectations.	yes..defininitely.using radiation in general. Being in the unit in general,communicate with operators about changing conditions in unit. Start up and shut down. People in surrounding area. Working on leaks. Spend more time assesing job and how it is going to be done
Should have used Stop Work before starting to work on dark platform. Experienced Ops did not use Stop work. Was SSE a key issue? Continue to Always support it.	Both Day/Nightshift crews could have stopped to get light plants in place and/or stopped to check ALL valves and LOTO points before continuing with the field turnover. All supervisors should reiterate the Stop Work Authority at daily tailgate meetings to make sure all crews understand the importance of it.	checks and balances. Better turnovers. Ensuring proper/ adequate lighting. Better communication.	when it was to dark too see. When supervisor questioned doing field turnover. When found not everything had been looked over.

It was scary that the mechanics knew some of the Operators. It reminds you that this is a dangerous place to work. It was asked how would you be if it happened in your area? When its personal it seems to have more effect then not. Always work safe.	This incident has brought awareness to the reality of working in a dangerous environment. Also staying focused on tasks and not to deviate from any procedures or safe work practices. * Important to keep your head in the game! *	never let your guard down. Always pay attention and have situational awareness. Always ask yourself- what is the worst thing that can happen? Because we CFD often times see the end results, we try to focus on guiding all employees to safe work practices.	it is a reality check, raised awareness...even one of the smaller seeming things can have a huge impact. Cautiousness with JLG and touching equipment
In this industry the potential always exist. Yes, all bleeders that are opened need to have a Bleeder tag installed on it. If you are using a bleeded and you have to leave it, should be tagged because you may forget it. Loto, tags	Tags should be used every time on valves and bleeders on our projects (per R-9900) no matter what the situation is. In our OTR business, we have many situational hazards that deserve our full attention, teamwork, and QC .	If you get into the practice/habit of ALWAYS tagging, it is harder to forget. It is a visible additionsl sign to notice and or catch one eye in the process od starting up or shutting down equipment. It is also a visible reminder if during turnover it is missed.	everything is changing....we need to have adaptability. Permitting process is different. Yes there is definitely a hazard not being standardized.

Different people working in that area. One shift LOTO's for another, day shift could have had lighting set up. Communications could have been better with the turnover. JHA's can help capture information with LOTO's, need to review existing JHA's. Some areas the OMC is the main person with information and not the crew.	Yes, there are potential communication gaps between different crews working on the same job. All crews should follow the same procedures ie : LOTO. Also, this particular area has bad lighting -non existent where the fire took place.	Clear and thorough communication is essential. Need for check off list to avoid confusion? We rely on memory sometimes to provide the necessary information. When completing multitasks it a shift, specifically during start-up / shutdown it could be easy to overlook a key issue.	shortcutting procedure process. Reading taken aand lows not communicated immediately. Running film at end of the week. 10 hr shifts during shutdowns,no overlap for proper turnover.
LOTO/R-9900 is still an issue, not everybody understands it the same way to isolate. Need to have R-9900 reviews on all changes with Operations so that everyone understands it the same way. Is every piece of automatic starting equipment clearly marked in the field?	Yes! R-9900 needs improvement.	Job aids and procedures need to be reviewed and revised if nessessary every couple of years to make sure they reflect the current operation procedures and are in the correct order to ensure safe operation.	yes,revising JHA,and a few other procedures regarding shooting at heights.how cameras are secured at height,and using proper equipment

Absent:	**Absent:**	Absent:	Absent:
J. Madigan, A. Decker, J. Rosalez, M. Gutierrez, G. Whitten		LeDonne	

Ken Yamasaki	Supervisor: Benjamin Hulse (sub for Cole Raiford/Brian S	Supervisor: Cole Raiford	Supervisor: Scott Wooley
U&E A Crew	Work Group: BS&U/Cracking Plant Support	Work Group: Designs Engineering (Make - Up Session)	Work Group: M&R IMPACT
1/30/2012	Date of Event: 25 Jan 2012	Date of Event: 2/1/12	Date of Event: 02 Feb 2012
19	9	5	23
	Comments:	Comments:	Comments:
· Very emotional.Need to take charge of the situation. Are people accounted for, very import part of assessing the situation. The operators knew exactly what to do during the situation and how to control the event from getting worse. This type of video gives you the true feeling of the operators and what it would feel like if you were in their shoes.	The video served as a reminder of where we work - it's a high risk work environment. There is a "monster in the pipes". Reiforced that we must not become complacent. Highlighted that small details can get missed when in a hurry. The larger, riskier things get caught, but it's the small, routine things that get missed.	Makes a strong impact because it is in our refinery and with our co-workers. Video of the fire and radio transmittal makes it feel like a real event. Drives home the importance of signing in a plant and making sure they know you are in the field in case of emergency. Appreciated the honesty of the participants in the video.	It can happen to any of us. A couple of us were involved in the last fire, also felt that we wanted to turn and go back. I was driving home down channel when I saw the fire just start. Intantly thought about "Is everyone OK??" This is a dangerous place, we can easily get complaciant It is our opinion , There is not much accountability out here for not following procedures. Like hanging a bleeder tags. There has never been a situation where tags should ot be used, the only change related to RI9900 for turnaround work is related to boundary isolation and the need to LOTO valves. Tagging of bleeders is always mandatory. With that said, we still need to look at job and walk out. WE have heard many commnets that bleeders do not have to be tagged during a T/A, we all felt this is not correct and goes against the RI-9900, and no MOC was written. the video made it real. One little task, and we were lucky

· The importance of turnovers and the accuracy of each turnover.Operators knew egress points in the area. You need to yellow line P&ID's. Tag all bleeders. Always follow all job aids and procedures. Communication has always been one of the most important tools we have. Safety tailgate meeting in either the control house or field. During startup not all procedures are normal. We may have to adjust for a certain task. Six people assigned to this area but who was in charge or did they have their own work direction.	If someone were in the line of fire, we could have had a much worse outcome. Had the fire monitors not worked it could have been worse - good to make sure that our safety equipment is in working order. Could have been worse if there had been further communication breakdowns - the incident response could have been worse. Could have been prevented with normal TO's, following procedures, personal discipline, etc.	More Serious - Someone could have been closer to the release and been sprayed/burned. Injury could have incurred during evacuation from platform. Prevention - Follow procedures more closely. Thorough turnover, not a field turnover. Communication among the crew could have been improved. Do not assume that someone else is taking care of it.	Prevention-Better oversite, follow prodeures with tags, Before leaving a job, bleeders should have been closed, tagged. Using procedures and job aids The field turnover should have increased level of involvement and turnover to reduce risk. There was a comment by the STL that field turnover was a concern. Multiple inputs from our group felt that field turnovers are a positive and often encouraged to get hands on task and complete a hot turnover, this should have minimized risk. Perhaps, hold crew over that was making switch, keep on task till complete.
· Always use your job aids or procedures to ensure the task is done correctly. Ensure we have a good training program so that all employees understand the hazards of their work Know the risks associated with your job.	For DED, we need to fully understand the job we are working on - know all of the potential risks associated with the job. We need to take the time to clearly communicate the job - even if there is a percieved rush to move it along. We need to not allow the system to rush us.	Thorough design reviews of equiment when purchasing. Think through how equipment can fail and what the consequences might be when ordering. Making sure that we field walk jobs to fully understand them before issuing an EWO with work direction. PSSR walks to verify and validate proper installation.	Putting equipment back together right everytime Follow hot work procedures Entries completed Need to make sure contractors understand workscope with clear concise tasks, procedures and enforce contractor behaviors

			absolutely, all agree When you think it is a high hazard, non routine task Know your co-workers experience, trust? Trust may have been the downfall, high risk jobs we usually do well
Yes! Avoid startups at start of shift, if this is not possible, good communication and tailgate meeting should be conducted. Operators may need to stay past the end of shift to ensure good turnovers are give. Take folks out in the field if need to understand where we are in a procedure. Take good notes throughout the day, this will help ensure turnovers are accurate.	Greater level of attention when we're writing instructions for a high risk activity. When plants are in any kind of transient state we have no business out there - required personnel only. Whenever someone tells us that something is "easy", it has a tendancy to increase our pucker factor.	Yes a similar incident could happen while an engineer was in the field. Also we could install equipment that could lead to an incident. A greater level of attention is usually offered when doing something out of the ordinary. When the percieved risk is higher it causes us to be on high alert. Act differently by asking more questions, using LPSA more, communicating more often, and paying attention to the details.	
			Stop work to start light plants,Better lighting Turnover, work through task together or night shift start from scratch and check all steps required to put in service. better oversite, walk the job
· If someone has a concern, we should address it right away. If you feel rushed then you should pause and discuss your concerns. The culture has shifted to a more acceptable practice of using “Stop Work Authority”.	Stop/pause work authority could have been used to ensure adequate TO's (instead of field TO's), and to ensure that there was adequate lighting on the filter deck. We need to continue to steward and encourage stop/pause work authority. Not discourage folks by making them feel uncomfortable for not knowing something.	Stop Work could have been used to make sure that field turnovers were not used. The situation was assessed and analyzed but no action was taken. We need to be bold enough to talk to others about our concerns to make sure stop work is used.	

· Prior to the Crude unit incident we always checked on each other. This incident was and eye opener and enforced that we continue this practice. When you are involved in an incident, you should take personal responsibility. When it happens to another co-worker you feel the emotion that they feel. We need to always do the task right to prevent incidents. Always focus on the task at hand. It doesn't take much to have a situation get out of control, so we need to always take the time to do it right. We understand how vulnerable we are if we do not do the task right every time.	The video served as another reminder that bad things can happen to us, and that we need to remain disciplined in understanding risks and not getting complacent.	The incident reminds us that you have to be aware of your sourounding and not take the work environment for granted. The comment about a "monster in the pipe" puts things in perspective. Seeing the video makes it feel more realistic because our coworkers are speaking about the incident. It creates more of a chevron family feeling.	WE are all responsible, don't trust Double check the job Using your past incidents to help future stop work authority. It can happen to us and impact our family and firends
· Always hang bleeder tags when they are open. All the time every time. Larger & complex system should have more attention. We always use information tags so that addition information can be passed along. We should always physically check a valve to ensure it is open or closed and not rely on a visual of the valve stem.	The philosophy on coating pipe is situational (varies from division to division), and could lead to a loss (wasted $$$, or premature corrosion and potential loss of containment) without some vigilence on our part.		Our work focuses on turnarounds so our group focuses on turnaround work and release all the time. It may be more situational if our personnel went to work routine jobs and are not familiar with tasks for routine work. We all disagree with the comment situational use of bleeder tags- bleeder tags were always mandatory from us folks that had many years of operations experience. (Shutdown or not) Bleeder tags must be used, no exception. There is nothing in the RI that discusses not using bleeder tags Cut line tape procedure, continues to happen. Exaples shared included 1995 SDA/Rose serious fire and injuries angain, bleeder left open, not tagged. Where does the RI state that bleeder tag use is discretionary. This really got alot of discussion in the group and we were 100% aligned this is, our input is this maybe a D&R east belief. MOC should be issued if this deviation was to be used. RI-9900 4.2 Vent and Drain Bleeder Valves *Vent and drain bleeder valves are used with isolation methods to ensure depressurization/draining of process equipment being released for maintenance; valves should be as close to the work as possible. Richmond Refinery – Safe Work Practice Standard – RI-9900 Control of Hazardous Energy (LOTO)

· We should always have a lead person on each shift to give work direction. Keep electronic turnovers accurate. Don't clutter the turnover. Turnovers should have pertinent and critical information. OD Sheet helps but we need to remember that this is a record and not the official turnover.	We have experienced "musical chairs" with many jobs being passed from engineer to engineer, and we don't always give the best TO's. Could be an opportunity for improvement/standardization. We could do a better job with our nomenclature at times - example discussed was "fire eyes" being used to describe two entirely different things in Cogen - could lead to confusion, potential losses.	Yes - there can be communication gaps across groups about the status of equipment in the field. A thorough field review is necessary to validate field conditions. Potential for communication gaps during shutdown turnovers between day shift and night shift engineering.	We routinely will hold crews over to complete tasks that are not complete but the potential exists. One person should be accountable to complete final walk to complete task. Complete your LPSA, this was a root cause on behaviors
· We make it a point to red line our procedures if necessary and forward to our trainer for corrections. LPO is another tool that helps us find flaws or corrections to our procedure.	We have CES, JLA's etc and believe they are pretty good. Could always use more Job Aids (not specifically referring to the Tmin JLA that Ben is "working" on of course).	JLA's, RI's, Chevron Engineering Standards, Engineering Instructions - Feel like they are up to date and well maintained with little risk. If errors are found the group does a good job of communicating it across all of the DED groups.	For our group, we feel 91 gate training value and may just be check the box item at this time. Some of material is repeat of previously received training from OSCA. The badging from OSCA and requirements to attend 91 gate training is confusing, perhaps have OSCA complete the remaining items to train and only complete IIF managemetn discussion at site. Recent updates to GR-800 to GEN5209 is well advertised which is a large portion of our work, contractors are well aware.

Absent:	Absent:	Absent:
		Roy Brace, Glen Mashy

Supervisor: Robin Tehrani-Saber	Supervisor: Jeff Porter	Supervisor: Chuck Riley	Keven Quaintance
Work Group: Refinery Capital Projects	Work Group: Refinery Capital Projects	Work Group: Refinery Capital Projects	Core Capital Projects Stewardship meeting
Date of Event: 24 Jan 2012	Date of Event: 31 Jan 2012	Date of Event: 26 Jan 2012	1/25/2012
6	20	6	24
Comments:	Comments:	Comments:	
can happen to me small error could have cost someone's life Opening remarks impactful, honest, sincere, What engineering can do to make the operators job easier? (ie, lighting, etc) Check all safety equipment before starting the t/a to ensure you're ready for startup..	How could someone make a simple mistake? How come no one caught it? You know what needs to be done, but you don't always take the steps to do it right. Sometimes you're too tired or rushed for time. You never think it will happen to you.	Reminded us that we work in a dangerous place. That unit has very dark places, why wouldn't they do something about the lighting before the incident. Felt frustrated. Makes us feel unsafe to walk out in the field, if there were operators that are not following procedures which would make it safe for us to be at the plant.	You see real people talking about how this affected them Sincere, heartfelt, sense of vulnerability Someone could have been severely hurt or dead Very powerful video. Communication, knowing how to get a hold and account for your people during an emergency. Poor lighting

Bad luck, being in wrong place at the wrong time, there could have fatalities. Prevention: LOTO, valve should have been tagged, better lighting, better communication, proper turnover, should have used SWA when heard about field turnover. Perhaps, we need to require operator assing to restart the plant to have a 2- day rest prior to s/u.	Loss of life / more serious injury Larger fire A physical checklist to mark off A lack of communication Shift changes are a risky time There were no lights in that area The refinery does lighting checks to ensure that there is enough lighting	Following procedures all the time could have prevented this entirely. Field meeting vs. sit down turnover could cause gaps in communication. Stop work authority should have been used when they heard that a field meeting was going to take place. If there was a fatality that would have been the most serious result of this incident.	a. Someone getting severely hurt. Following procedure, using your Stop/Pause work authority. Proper turnover procedures. Never "ASSUME" or rush. Use of LOTO.
Electrical projects have risk and mitigation plan for every task every time (must be approved and signed) Should have followed procedure. There was no mention of LPSA This wasn't the first time there was a fire because of an open bleeder.	Review & check work done on paper & do a physical walk through. Critical task to take the P&ID (drawings) to walk & check to see if its correct. Check to make sure location of valve is in a good location and that it's in a area that is easy to reach/work on. SID - Safety In Design - always comes first Procurement can take steps to make sure the purchases are correct; watch for overspending Ensure that equipment is suitable for the job Check VDDR requirements, don't assume the vendor witll work to CVX requirements/specs Should we be performing a SPA/JSA? Before leaving for the field fill out a list of tasks and have a PM sign off	All tasks must be done right every time. It doesn't look like all hazards are being identified fully, can a fire truck be on standby when doing this type of work at the unit? Are JHA's done at this type of activities? Is there a checklist that needs to be completed when doing turnover?	a. LOTO, hydraulic, follow written procedures. Use of LPSA tools. Proper work assignments. Pre-job/task planning meeting to minimize risk. Importance of escape routes/assembly areas.

It could for work that we do routinely. Fo rmore complex items there is a great attention to details. More rigorous traning, follow Tenets of Operations, perform LPOs	Yes, car accidents; got rear-ended while in a pool car; was more vigilant and checked rear-view more frequently Don't walk through a unit unless you have to Walk with someone who is familiar with the unit/area Check/Be aware of the wind direction & evacuation plan Do you perform with safety in mind when performing routine tasks?	Yes, it could, but we are careful about being out in the plant during start up or shut down. We can have an electrical fire in this building, if warming up food, stay by the microwave. Make sure that cords are safe. Overloading of electrical cords, making sure that our annual cubicle checks take place.	a. Elevated work, energized equipment, tie-ins, confined space. Working over water. Risk recognition, JSA's, commitment, looking out for one another.
Area Supervisor could have used his SWA Operators getting turnovers should have used their SWA SWA should have been used if no return procedure was used.	If anyone is unsure about anything, they should ask questions If something doesn't look right don't do it. Stop Don't assume someone else has brought attention to the issue	we believe that the gentleman that didn't feel safe about having field meetings should have used his stop work authority and suggested sit down turnover instead. In order to make sure that our stop work authority becomes successful, we should put it to practice more often. Contractors as well as employees need to feel safe to use this tool, recommended for supervisor to occasionally do stop/pause work authority themselves once in a while, and show that they are using it as well and make us feel more comfortable.	a. During field turnovers, group meeting to address what was going on. Dark area with poor lighting.

having a sense of vulnerability minimize number of people during s/d and s/u will not make decision on risky stuff when tired	Strong sense of ownership of work done Hightened sense of awareness	It serves as a reminder that we should always be aware of our surroundings. Drives home the situation of signing in and out of the unit, seems that we are still having issues signing in and out of the units, Don't short cut the process of only signing in and out when coming in to work and when they are leaving to go home, they should be signing out when leaving the unit and when they are returning.	a. Not take things for granted whether at work or at home. Lack of clear work direction/responsibility.
		LOTO should be used on bleeder valves as well, or have a clear indicator that the bleeder is open, painted fitting, tagging it.	a. Follow procedures and be consistent with it. Understand new risks.

		In our work there are gaps in communication when procedures are not followed and when you have a lot of people working on the same thing at the same time. Are we making consciously making incorrect decisions? Need to make sure we are clearly commnicating specially if there are mulitple people working on the same task, so that no one is dropped off of that communication.	a. JSA, review paperwork and familiarize yourself with what is going on Every task needs a JSA. Clear Communication / direction.
Electrical projects issue new job aids as they place in equipment in service New procedures: a new JLA for scheduler for progress curves Review QA of engineering deliverables	Emergency contact list Update new employees on Emergency Evacuation Plan & details	Yes, we have job aids that need to be revised and are currently being worked on.	a. Use the tools. Ask questions; make sure everyone is on the same page.

Absent:	Absent:	Absent:
	Steve Roudebush	
	Walt Nilsen	
	Bill Mills	
	Ruchira Banerjee	
	David Paul	
	Omar Zuniga	

Supervisor: Jimmy Jackson	Supervisor: Kurt Gish/ Don Kinkela	Supervisor: Phil Sweet	Supervisor: Pat O'Neill
Work Group: Technical Management team	Work Group: D&R Plant Support Engineering Team	Work Group: Maintenance and Capital Projects	Work Group: D&R A Crew
Date of Event: 16 Jan 2011	Date of Event: 1/20/2012	Date of Event: 2/2/12	Date of Event: 22 Jan 2011
4	8	66	12
Comments:	Comments:	Comments:	Comments:
- Video brought back memories of working in operations and previous events- very emotional -Very personal for those that know the individuals in the video -Amazing that 6 individuals could miss the bleader, some normalization of deviation	Highly impactful because we know some of these people Particularly impacts this group as we worked this particular s/d Raised questions as the video unfolded as to whether this was part of a job that we worked and may have been caused in some way by us. Could have been any of us, as we could have been call to the site.	It is real and personal. Even the small stuff could lead to a catastrophe.	It was made personal due to the fact that the radio transmissions from the actual event were from and about D&R operators who all attendees are friends and co-workers of. Ryan Angens comment near the beginning about" You don't think this applies to you until it actually happens to you." was well taken.

-Would have been worse if proper vent had been used, employee was on investigation team. - If folks didn't get off the deck quick enough or recognize the release -Not understanding the egress -Numerous actions could have stopped the risk: better LOTO, better turnover, night shift working over if task is critical enough, better lighting	Yellow Line of the job Could have tagged this valve Could have closed the valve - don't know why it was open for hot standby Could have followed a step-by-step procedure as used in Military Different location or direction of drain valve could have trapped the people in an even worse way. Fast setting of the fire-monitor likely saved from more extensive damage Knowing where to run and familiarity of the plant that a newbie may not have known.	A) The Incident leading to an injury or loss of life. B) Good communication, better planning and consistency with procedures.	Discussed the fact that people had just been walking in the area near the bleeder and that the outcome could easily been serious injury or worse.
- Review process limits - Strong focus on egress during designs	Use the hazard navigation wheel card to help identify hazards in our jobs Ask questions when you don't know / involve the right people	All tasks are important and should be done correctly everytime. Critical tasks examples include include LO/TO, Confine Space Entry, Excavation, Hot Work and Elevated Work. I think we do a pretty good job with high risk activities but, tend to minize the small ones.	The strict use of bleeder tags was the primary focus of the operator discussion. While the deck was poorly lit and the bleeder tag may have been missed, it WOULD have been one more chance to prevent this occurance.

-Not executing hot taps properly per procedures. - Designing for reliability - Understanding egress when designing equipment - Not being in the way in the filed during critical start up situations, limiting to critical personel only -Short cutting lab procedures can lead to a release	We are all vulnerable to this type of incident when every we are in the plant S/D & S/U of plants trigger added attention When signing into the plant, if alarms are going off or issues are being delt with, it may be better to come back at a later time. MOC's also trigger hightened awareness - PSSR, etc Hot-Taps	Yes, the items listed above. Communicate	t The more experienced operators related past experiences when valve positions were missed and serious consequences were either experienced or narrowly missed. It was noted that these near misses helped develop increased awareness for the experienced operator and that the "old hands" should pass this experience on to the "new guys".
-STL could have stopped the field turnovers when he recognized the risk -Operators could have stopped the work when they recognized the lighting was poor. -Field operator could have stopped work to review line up/LOTO	Stopping the field t/o and requiring a standard t/o Any of those on site could have stopped the work to review all valves, etc. Fully support those who stop/pause work Positive public discussion about when stop/pause work authority is used (Like they do at burrito safety morning meetings)	Stop/Pause work could hace been used during the turn over process. Personnel to be responsible to act when conditions do not seem to be right or work direction is unclear.	The possability was discussed that people may have been reluctant to say "are you sure you checked that?" for fear of seeming to question another operator's competance.

- Recognize you are always vulnerable, and this type of incident could happen to any one of us -Take a holistic Review of Operation Discipline to prevent these type of incidents in the future	Re-affirmed staying out of the plant during s/u operations unless absolutely needed. Emphasized that it is good to stop or delay work if needed to insure safety of the job.	The safety clip really demonstrated how personal the incident was. We know or are acquanited with many of the people involved. It shows that it could happen to anyone at anytime. We are all vulnerable.	Tthis incident brought home the fact that it could happen "Here'". It was noted that in recent years a lot of these type incidents have happened "other places" and this brought it home that D&R is not imune to this type of event.
-In designs, Not using standards can easily lead to incidents -If CPV are Not monitored and adherred to serious incidents could occur - Not following procedures in the lab can lead to off test product leaving the refinery or an injury to lab personnel	Standardized valve tagging for all situations would prevent unchecked valves and bring attention to these valves. Wider use of tagging every time would have to be accepted by all to help prevent this type of future issue Quick clip ready made tags would be useful for rapid use.	Yes, LO/TO during Maitenance activites vs. Shutdowns, Fall Protection Maitenance requirements vs. Capital Projects.	The operators (especially the senior ones) stressed that the expectation is to use a bleeder tag EVERY TIME. The senior operators all had examples of past events when bleeder tags were NOT used and serious consequences or near misses resulted. One item noted was that we had recently been running short of bleeder tags and that perhaps a bleeder tag was not put on the bleeder since none were readily available.

	Shutdown turnover from day to night shift (i.e. day shift gives direction to contractor and night comes on and provides different direction to night shift contrator. Signing into the plant - check in with H/O, important for H/O to highlight risks to the enterant.	At times. A lack of communication between crews or personnel during job turn overs. (Changing of personnel or entire crews). Lack of communication between contractors and/ or their subs on a muti-employer site. For example, if an excation is dug by one contractor for another, the contractor entering the excavation may not be trained to recognize the hazards associated with the excavation.	In the discussion it was pretty much agreed that "field turnovers" are sometimes not only acceptable, but may be preferable. The big factor mentioned was that there may have been too many people involved with the same task and assumptions were made that "somebody else checked/did that."
Absent:	Is there a better method for sign-in, such as a badge reader. Sometimes there are multiple pages of current sign-in sheets that could result in missing someone.	Yes, tools such as JLA's and JHA's are continualy revised. Procedures and processes are modified when requirements change. We close the gap by proper training and communication during tailgate meetings.	There is an existing job aid for this and evidently following it closely may very well have avoided this event.

None	Absent:		Absent:
	Mike Fitzgerald		M Solis
			D Chavalier

Supervisor: David S. Wong	Supervisor: Doug Fryer	Supervisor: Doug Fryer	Supervisor: Ike Bullock
Work Group: Process Control Network team	Work Group: CIS Management Team	Work Group: CIS Business Applications Team	Work Group: CIS Management Team
Date of Event: 26 Jan 2012	Date of Event: 17 Jan 2012	Date of Event: 24 Jan 2012	Date of Event: 26 Jan 2012
10	4	6	8
Comments:	Comments:	Comments:	Comments:
they did a very good job putting together the video, caused a number of folks on the team to have flashbacks to similar incidents in their careers here at the refinery. Some noted how dark it was in that particular area of the plant. We always need to think about what we're doing, can't cover everything with a procedure.	* Very strong personal story starting with radio traffic. * This is not a unique event, we've experienced incidents of this magnitude in the past.	Everyone on the video was very open about what happened and willing to take personal accountablity for their respective part in the incident. This could have happened to any group in the facility and similar incidents have taken place in other work groups. We all need to have a sense of vunerablity when performing routine as well as infrequent high risk tasks.	The individuals in the video were greatly impacted by the event that occurred. Even though everyone was trying to do a good job something still went very wrong. Too many folks trying to do the same job (?)

More pressure/higher flow would have resulted in a more serious incident. If the spill had H2S has a component, people were trapped in the wrong area or the spill had been on personnel present, the incident could have been much more serious. Move thorough walk thru - catch it before it happened, have planned egress routes. We have unfortunately seen more serious incidents than this.	* An individual standing in the wrong place from a line of fire perspective could have led to an injury. Seems to be good recognition of how to egress from the platform without getting injured. *A simple blind tag on the valve would have alerted those on the deck to the potential exposure risk and prevented the incident.	Using a detailed procedure for this task may have led to discovery of the open bleeder. Hanging a bleeder tag on the open valve could have prevented the incident. Better lightning on the platform could have prevented the incident. Supervisor verification on the deck.	Closing the bleeder valve would have prevented this situation from occurring. Placing a tag on the bleeder valve may have prevented this incident. Improved lighting may also have prevented this event. Under slightly different circumstances someone could have been seriously injured or killed.
communicate, work togther, follow right procedures, use MOC appropriately. Get the right people involved; don't assume that they should know what they're doing. Keep an eye out for each other.	* If a valve is left in the open position a blind tag should be attached. * Always follow procedures. * Changes to a SIS,FSC, and CCC etcc... systems need to be MOC'd and procdures followed to prevent inadvertant plant trips or improperly armed safety s/d systems. * Network firewall changes need to be done properly everytime.	* When testing against databases ensure were using the development DB's and not production. -follow procedure- *At risk activities we must ALWAYS perform the right way every time are software updates, server updates and application change management processes. * Ensure you have a fallback position when exucting this critical tasks. The customers expect no outage.	Changes to SIS, control logic etc. We try to identify the hazards. Near misses should always be investigated for root causes and lessons learned and solutions applied to prevent an incident.

Being in the general vicinity of a disaster, check wind socks to verify egress direction and evacuation routes. Know what's going on around you, normal operations, startup or shutdown.	* Yes and has happened in the past. * Low frequency high risk activities * When heavy project demand stretches already low resources our routine critical activities could suffer.	* Not of this magnitude but the CIS organization can have incidents of serious maganitude, including loss of data center which would cause a major disruption. * Failed SQL SA sys admin account incidents	Yes an unforeseen incident can happen to anyone. Increase activity or distractions should call for greater attention. Trying to do too much can make someone more vulnerable to an incident.
During the field turnover - extra time could have been taken to cover how the state the equipment was in. Fix the poor lighting in the area.	* Supervisor could of took a more active role in the turnover process when he recognized filed turnovers were being executed. * Senior operator could have executed stop work authority and spent more time reviewing the line-up on the filter deck. * Anyone could have stopped work on the deck due to poor lighting. * Supervisor and managers could have reinforced a sense of vunerabilty in the crew during this critical handoff beteween maintainance and operations.	* Recognition of low lighting -> Stop Work * Ho verfication on filter deck * OA recognizing field turnover was taking place -> Stop Work follow-up	Work could have been stopped if supervisor was uncomfortable with a field turnover.

Only be in operating areas as necessary. Raises awareness and reminds us what can happen. Several on the team have had experience with an incident or been through a similar event.	* Take time to recognize when individuals are in a hurry and potentially cutting corners that could lead to an incident. There is always time to do it right and safely.	* Don't assume tasks around critical activites are being done properly. Verify they are being done properly. * Software updates from ITC that are just assumed to be risk free when pushed to the refinery audience has led to incidents in the past. Spend the time verify by testing these packages - the right way everytime.	This could happen to anyone Consult with others when unsure of risks Never be over confident
Moving C7000 Blade Server to TASC was done by team personnel. Moving it back was done by moving personnel with proper equipment to handle stairs and weight.	* There is always a potential for communication gaps around critical activities when overlapping startup coverage. * Temporary DCS configuraion changes in the event of startup or incident response can be made and potentially lead to problems if the change management process is not followed properly.		Poor use of change management could lead to an incident. Poorly trained work staff etc.

Reiterates the need for keeping things properly labeled. For us that means keeping our diagrams up-to-date. Keeping up with changes and paperwork.		* For the CIS organization, we need good communication between the sever team and the SQL adminstrators. Without good communication our users can experience application disruptions. This is an area that has room for improvement. * Ensure our change management process in the Champ process is being done properly.	Good communication is always a challenge with working within group or across multiple groups.
IPEG and governance - have we done the appropriate paperwork to document the changes that are being made in the infrastructure. PCN patch deployment procedure has been changed to make it more efficient, has the corresponding written procedure also been updated? Need to check procedures to make sure they are current. Good use of LPO's last year to check that back up personnel and procedures were in place and adequately trained.		* Our application documentation needs to improve in the application spaces as well as completing as many IPEG tasks in the application space as possible this year.	Job aids are primarily used to manage control system work. Things can be missed even with a procedure. Developing more procedures and job aids

Absent:	Absent:	Absent:	Absent:
none		Linda Fitzpatrick	Bill Herbert

Gerald Zekrzewski	Supervisor: Chris Johnson	Supervisor: Gabrie Anchondo (Petrochem Insulation)	Supervisor: Richard Sylvia
Hydro D Crew	Work Group: Process Control Team	Work Group: Petrochem Insulation	Work Group: HES - Hazardous Waste & Air Compliance In
2/3/2012	Date of Event: 26 Jan 2012	Date of Event: 2-2-2012	Date of Event: 2/2/12
10	7	17	8
	Comments:	Comments:	Comments:
Several folks said it was eye opening to actually see the size of the fire.	* This could happen anywhere (FCC burn on bottoms strainer, SDA Rose incident) * Related to the "beast in the pipes" comment	Brought it home made it real. We know a lot of the operators that were involved in this incident, reinforces the importance of doing LPSA everytime. Had this incident happened earlier there was a lot of our co-workers in that exact location Insulating piping in that structure.	Message was very personal. Emotionally upset by the potential for serious injuries or loss of life. The fire footage with the audio track made the event come to life and made it feel like you were present for the incident.

The heat from the fire might have opened up a flange that wasn't isolatable causing it to be more severe It could have been prevented by: Tagging the bleeder Stopping work until light plants could have been set u Having staging removed prior to startup sequence	Worse: * if the operator running from the vapor cloud had tripped due to poor lighting conditions Better * spend more time on turnovers. No field turnovers. * turnover at a bad time; very unstable part of procedure. Out-going and incoming crews should have spent more time working together * this was the first night on the T/A that the crews did not take things slowly. Also, the nightly "pep talk"/reminders/safety focus discussion from Ops Managment did not occur at turnover like normal	Better lighting might have helped, even though operators had flashlights. Better communication might have prevented this incident. If operators would have been 5 ft or less closer, somebody might have been seriously hurt or even worse KILLED. By operators knowing the egress points that helped them a lot to get out of harm's way.	More Serious; the fire a few feet closer to personnel or impeding the path of egress could have resulted in serious injuries or loss of life. Prevented entirely: closing the vavle, tagging the open valve, clear turnover on equipment status may have prevented the fire entirely. The lack of adequate lighting contributed to the lack of recognition that the valve was open but better lighting alone probably wouldn't have prevented the fire.
Feed pump switches./ FSC Check. Putting equipment back in service/ Most operators believed they were identifying the hazards but brought up the fatigue issue and wanting to be finished with the shutdown as times those things might get overlooked.	* Always scan flash drives before inserting them into any PCN/DCS computer station * Get a 2nd pair of eyes to review critical control tasks/interactions (working on PLC's, working in marshalling cabinets and server racks) * Always check DMC limits prior to requesting a controller be turned on by operations	Continue doing JHA's which identify all the hazards, LPSA everytime every task, Asses every job because every job is different, we're trying to think ahead try to minimize hazards.	Our criticial tasks are signing in and out of units, knowing evacuation routes and meeting locations for accountability, grounding & bonding of equipment during liquid and solid transfers and the proper evaluation and application of PPE for waste management activities. The majority of the time we are but some additional guidance or clarification on 3131's benefits the drivers and the other personnel at the job site.

Operators agreed this could happen to them, Things that triggered greater level of attention again was starting up equipment after it was shutdown.	* Yes and has happened in the past. * DMC step testing triggers a greater level of attention	yes it can happen to anybody, working at night makes you think a lot more you're not able to see all the hazards, very hot jobs, thinking of my family makes me more aware, Other trades in the area makes us be more careful. High altitude jobs, we can request netting if necessary.	Yes, we work with a number of different hazards in the field. Non-routine jobs or hazards elevate the attention and supervision of the task at hand. Elevate the PPE, include more detailed communication, and introduce additional safeguards to mitigate the hazards (N2 purge, pre-loading of trucks with chemicals etc.).
Any time prior to the incident especially since the area was so dark. Operators said management needed to be more supportive of their stopping work. I brought up several times when we did but they still feel Upper management is not as supportive.	* Supervisor could of took a more active role in the turnover process when he recognized filed turnovers were being executed. * Anyone could have stopped work on the deck due to poor lighting. Why SWA does not happen: * I don't know if you are doing things correctly or not, even if it looks unsafe * I don't have time because I am overloaded myself * In jest, suggested having a "SWA whistle", like NFL referees, Southwest Airlines commercials	If everybody would have taken more time to asses the job, the open bleeder might have been caught by somebody, keep reinforcing STOP/PAUSE WORK AUTHORITY, no harm no foul. Promote it, make people feel more comfortable using it. Learn the right way to approach somebody.	Stop work authority applied to the field tunovers may have improved the communication and prevented the incident. Put SWA in front or prioritized above turnaround schedules and success.

Several operators agreed it was an EYE opener and mentioned the fact that there is definitely a beast waiting to come out of that pipe	* Take time to recognize when individuals are in a hurry and potentially cutting corners that could lead to an incident. There is always time to do it right and safely.	makes us be more vigilant, take time to look things over, try and catch everything, check your surroundings not just the immediate work area	Increased awareness for line of fire and routes for egress, have an out. The video pointd out how the small things can contribute to an incident and the importance of always doing things right.
Most agreed the bleeder should have at least had an informational tag on it.		Tags could have definitely helped, unless you're opening something and closing it right away,	One example of situational labeling or tagging is the approach used during a very complex processing operation which is not the normal pracitice for temporary processing equipment. The change was dicatated by the complexity of the equipment layout and alternative routing available, the situation was unique and offered challenges that would not normally exist in our operation. Signing in and out of units can be situational, sometimes sign-in is not followed if the visit is short in nature and on the outer boundaries of a unit (DEBRU). Grounding and bonding measures are adjusted to acommodate the use of plastic containers, when a metal pan will not work for a job. The standard grounding and bonding is adjusted to include additional grounding measures, on a case by case basis. Opportunity here is the elimination of situational approaches for sign-in/sign-out.

Not putting information in turnovers was key. I tasked the operators to “kick it up” in the turnover quality		Communication is very important, avoid losses.	There are ommunication or language barriers between specialists and our contractor field technicians. Acronyms, operating terminology, and hazardous waste terminology can cause communication problems. Extra effort or attention is given to the work direction for the technicians and follow-up is required to ensure the work has been completed properly. Gaps in manpower support for day shift to night shift activities can cause inadequate turnovers. When we operate a day and a night shift we don't usually cover the entire 24 hour period, unless we are supporting plant shutdown activities. Inadequate or wrong information on 3131's is a significant gap for hazard communication that we address through follow-up for gaps or inconsistent information.
All Agreed the procedures still need work as evidenced in our still finding issues while doing LPO’s	* While we are tackling documenting our work tasks via the LPS process (JLA development and testing via LPO's), here are some additional tasks that we need to develop job aides, procedures, or JLA's for: SmartStep execution, LP Strategy development, lab-based inferential development, AspenIQ configuration, GIL file management for DMC Project and APCTools files	Making sure we're using the latest standards, because they change. If you see a procedure that can be done better bring it up so we can change it. If you don't like something bring it up so it can be changed.	We haved procedures and job aids for our activities, there has been a focus on developing more when they are needed. We focus on procedures during LPO's or on the activity to determine if there is a sufficient risk to require the development of a procedure or Job Aid. No actions, beyond the current approach, were identified to bridge gaps. The gaps are identified during our LPO activities and managed through the LPO tool.

Absent:	Absent:	Absent:
Mark Milling (scheduled to review week of 2/6)		None
Wayne Kaminski (scheduled to review week of 2/6)		

Supervisor: VT LOTAKOON	Supervisor: Don Zarraonandia	Supervisor: Don Zarraonandia	Supervisor: Jon Mauer
Work Group: ACIG	Work Group: Operator Trainees at Hensley St.	Work Group: L&D group Hensley St.	Work Group: B&S U&E
Date of Event:2/9/12	Date of Event: Jan 24 2012	Date of Event: Jan 25 2012	Date of Event: 18 Jan 2011
14	Number of Attendees: 19	19	15
Comments:	Comments:	Comments:	Comments:
Can't forget where we are, getting complacent and forgetting will effect you and people around you, puts you back in reality, listening to the radio transmission was kind of scary, sign in and sign out, ops will look for you if your not there, also check in and out, communicate with ops, any time you leave unit regardless of time sign out, get to know ops, it's easier when you have a personal relationship,	Very intense video as it is so close to home. Very positive	•Too intense, I had to leave the room. •" I was in last fire and I remember screams and radio. Just when you think you're home free". •Same emotions over 3 fires (some worse) and things haven't changed. •Management needs to get people to do things right or impact slowly erodes each time.• Made me appreciate people who work in the plants in a new way. • Video was very personal. I know those people. It makes me angry. We need to find a way to sensitize people or they think they're invulnerable. Maybe management should bring out all old videos and remind people of 'the beast'	*Yesterdays tone down was due to hand injury at the power plant when a mechanic was moving a tool box and had his hand trapped by the box. *P-101 Wedges slipped out of place during mechanical work and splashed a fitter. *OE discussion guide to be concluded by February 17 engage all crews is critical to our success. *Tenant of operations Always time to do it right. Every task the right way every time.

*Video put together well.
*Impressed with honesty.
*Very real use of Tool set.
*Shows How every one of is vulnerable
*O/D How can this be prevented.
*Assumed conditions in the field but did not verify.
*Trust but Verify
*Overlapping or extending the turnover time to prevent hazards with outside turnovers.
*Focus in using the Tools - LPSA, LPOs, Tenets, SWA, Hazard ID / Risk Recognition, OD, Turn-overs
*This incident can happen to any job in the Refinery

The worse outcome could have been fatalities; 8 feet may have been the difference between Life and Death. Action that could have been taken to prevent:PSSR. Could an orange operator tag have prevented the situation. Written turnover? Things could be left out in field turnover. Field turnover is good if there is an unusual situation. Field turnover needs to be done with written turnover.

- Distractions prevented looking at things they should. Fits with OD—more than just saying the words "Every task, the right way, every time". We often don't get a 2nd chance. • Any detail could have made this much better or much worse. It's what I do that makes the difference. The only thing we have control over is our own behavior.

Better lighting, better communication with turnover, have clear expectations with turnovers, having bleeder tag on valve, pay more attention to valves in unit,

*Giving /receiving a better turnover could have prevented the incident.
*Fire monitors had recently been respotted which could have led to a quicker more precise response which could have reduced the significance of the fire.
*EBV Failure...Lack of EBV in critical tank field areas of operation e.g.. 17 Pump station (Mogas Blender).
*First Line Supervisors should have been in the field observing more taking action or giving more oversight to operations.
*Oversight on loto and auditing procedures

An Operator tag. Stop or Pause Work Authority to commu

• I interviewed one of those guys and worked with others. Why was that place pitch black?
• Group was concerned that lights had been out for years off and on and hadn't been fixed.
• There was a theme of fatigue. Fatigue impedes judgment. Should we be evaluating schedules? How do we keep people refreshed?• Schedule was addressed 25 years ago. There has been some movement since then, but doesn't seem to be enough. Contractors may be working too many hours.

When there is a start up ops should communicate more, loto, talk about job, go over jsa's, visual verification, talk to folks working around you, let them know your in their area, complete every task the right way,

	Understand that I have the live's and well-being of my cre	• Do we do enough before a turnaround between ops and maint? Are we looking out for contractors well enough? • Should be a checklist created of every valve and pipe, lot of filters that are hidden. Bleeders could be not seen or accessible.	*During start up and shutdown always validate / verify your system line ups prior to making any changes in the field. *No procedures only a JLA was used(created) for this job after the incident. *This operation met the matrix criteria for requiring a procedure and didn't have one. Are we vulnerable under this scenario? *Understand your system. know them well enough to be able to trouble shoot the system. Think inside the pipe! *Know where and how your critical process can change. *Safeguard communication. Verbal is not always the best unless systems are being walked out together. Verify *Lighting are we using LPSA Behaviors? * Reinforce the Use of Stop Work authority * Continue to engage with the crew on LPSA focusing on the Act
yes, leaking valve, working around h2s, working in yellow lined area, working high pressure units, check in with ops/ sign in, have correct PPE, know where safety showers are at, have evacutatoin plan, fill out JSA,			
	Everybody needs to embrace it. Positively reinforce SWA		*When working on 115 KV system we have a greater sense danger or a heightened sense of awareness toward the task at hand *Always maintain awareness during routine duties and tasks as you would during high risk operations. Always use the same assertiveness attention and LPSA in your daily activities.
Should have stop/ paused when ops didn't have all info, or when didn't feel comfortable with job, reinforce and go over job when unsure, never assume,		It boils down to caring for each other. • Lots of people said this was the safest shutdown ever. When I was out there, I was pleased with how they kept track of me and looked over me and looked over others. Operators know the contractors and are genuine in looking out for each other.	

Knowing that everything and anythingthing I do wherever I am may have an impact those around me.

communicat with ops, let ops know where your going to be, wake up call, it can happen to anyone and happen real fast, don't think this will never happen to me , it can happen to anyone,

The smallest action such as closing a valve may have the

Only when you walk away from it, every time you open the bleeder to atmos, always tag the right equipment, make sure you report the right equipment to be fixed, if not sure of where the leak is from ask and get the right info

*During the start up the operator should have stopped the filter switch until he had an opportunity to review the field equipment.
*If the supervisors were present the right questions might have been asked the equipment might have been reviewed properly.
* With Supervisor oversight the right questions always tend to get asked and answered.
*Lack of bleeder tags likely caused the incident.
*To much focus on the timeliness of the start up. Operations may have felt pressured to get the equipment up.
* During start up when the shift is changing its not always possible to stop / Pause work authority everything to do a thorough review of the equipment.
*Overlap 16 hour shifts during startup periods to ensure the appropriate coverage and focus on the startup.

*Hindsight is 20/20 more attention should have been paid to the safety of the startup. Getting the equipment backup is or should be the primary objective of the shutdown but is often overlooked or a secondary consideration .
*More supervisory oversight needed in the field.
* Commit to doing every task the right way everytime

- It boils down to the choices we make before we do a task. Learning how to do the task the right way is what I'll fall back on. The difference from many years ago is that we were held more accountable back then.

Making sure we have right info on tag/ paperwork that needs to be worked on	· Maintenance and Operating procedures-when a document can be created, has correct steps, instructions, person doing tasks will have right tasks. Maintenance instructions will be there and always can e referred to.	*The potential always exist for an incident in our work place. *Bleeder tags should be used every single time. *Should a bleeder ever be left open absent a complete loto?
Work with co-workers to help identify existing procedure		*Gaps in communication. Verbal communication can be interpreted may not be as good as a written turnover and not always as a complete unless all the area equipment is review by both operators. Lack of ownership Across operating Boundaries and oversight of hazards - Supervision & Oversight.
Radio communication, signing in/out, safety training, making sure ops are aware of leaks in unit, report all hazards to ops, stop work authority should be used more on Chevron folks by contractor.	We need to look at the resources required to ensure Operations and Maintenance procedures are being created and maintained from a business standpoint, not just a compliance standpoint.	

Absent:

Absent: No absentees, all present

- What's the right way to make sure you know where everybody is so you can find them when something like this happens?
• Would help to use same protocol for keeping track of operators that we use for contractors. Use GPS?
• If you ever had to wait for somebody like I have, you'd be asking for GPS.
• How about badge readers at the plant.• Trainee breaking in a trainee happens all over the refinery; this practice should stop.• We need to hire consistently, need to be hiring every year even if it is a small group to keep trained and each unit properly staffed. • Is there a database with videos, etc. with key word search?

*Yes We have examples of J/A or JLA's which may need to be updated. But all procedure and checklist are reviewed for completeness annually perhaps J/A and JLA should fall under the same scrutiny as procedure and checklist.
*Operational Disciplin and oversight of the risk matrix for each task whether it needs a J/A Checklist or a Procedure.

- **Would help to use same protocol for keeping track of operators that we use for contractors. Use GPS?**
- **If you ever had to wait for somebody like I have, you'd be asking for GPS.**
- How about badge readers at the plant

Supervisor: Scotty Kawahara	Date of Event: Douglas K Baxter	Supervisor: Mike Hidalgo	Supervisor: Rich Sylvia, Earl Young, Ron Allen, Dan Herlehey, Dave Butler
U&E "D" Crew	U & E	Work Group: P2S	Work Group: Clean Harbours, Veolia, Ancon marine, Delta Tech, Waste Management
1/28/2012	1/23/2012	Date of Event: 12/14/12	Date of Event: 1/10/12
12	8	Number of Attendees: 16	26
Comments:	Comments:	Comments:	Comments:
Several "D" crew members knew the D&R operators involved. **Neil Moffatt worked along several as he was a "REDHAT" during D&R's S/D.** **Crew understood that anything can happen out here or at home.** **All felt it was sincere and honest, the operators were not made to make the film as punishment, more of a sharing the experience.**	Nobody wants to see anyone get injured. Dramatic. Wake up call etc. were comments made.	Employee commented, "What do I miss while performing routine tasks at home and at work."	It was intense. They couldn't find the guys. The radio comm. Hits home that something can happen ... to YOU. Voices were impactful - and seeing the people who we deal with on a day to day basis ... they could have been gone. And it could have been prevented. Being a field supervisor - putting myself in that position of knowing, "Are my people accounted for?? " That sends a chill up my spine. People dont' always check in, sometimes they skirt the check in process. I want to know that everyone is checking in and I can say ... yes, Everyone is accounted for. I've been through similar situations - as a safety operator at the Seperator, to hear the radio call ... is bad. Especially thinking about talking to family members of people who may be affected. What was scary to me is that ***I*** could have been in there - I would be one of the people who were missing. We rely on everyone to do things right.

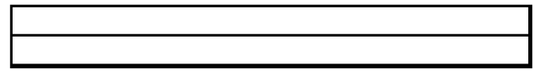
A little more time taken out after the field turnovers..such as a quick tailgate meeting to go over who's doing what jobs & what has been looked at, This was captured as "Monday Morning Qurterback" views. Sometimes the Start-Ups are during shift change and things are not looked at as expected. Some of the past incidents out here are seen as just lucky that some were not more serious, whether it was plain luck or a little experience that knowing what was happening and a quick move can save a life.	One individual commented 'We know that plant start ups are one of the higher risks for accidents / failures / mishaps to occur...we should take this in to account..."	The outcome would have been more serious had there not been two routes of egress from the deck where the fire occurred. If the operators had not been aware of their escape routes the outcome could have resulted in serious injury or death. The fire might have been prevented if the operators had been working off of a checklist, had a normal turnover, or were not attempting a filter change during shift change. Better lighting and fatigue management might have also prevented the incident.	More serious: Prevented: A good turnover - where we are in the work, check list, JHA, better communication, know about areas we need to check with, procedure present, tagging, lpo, --- showing exactly what was done - equipment/ work status. Job walks - follow the line yourself. Get another set of eyes. Start up mode has a lot of activity - written turnover could have helped. Acknowledge that conditions are changing, make adjustments. Have a checklist. Physically verify equipment status - don't assume. Be forthcoming with equipment status. Improved lighting could have helped. There were many factors contributing ... Start up during daylight hours. Are we leaving any traps for the company that is coming in that may harm somebody else? Think about and don't leave traps for others that come in after us.
Some LPO's that have been captured in U&E have probably saved some potential consequences by looking into the task more just a routine task that has always been done this way or that's how we've always done this attitude. **Operations sometimes feel their opinions don't count or not cared for. We give them the "Stop work authority" but sometimes question it as an excuse or ploy to not do the work.** **Knowing your plants & operating procedures to avoid an incident are a huge tool in preventing injury or plant damage. The video showed that the D&R operator knew that the leaking product was going to flash...a less experienced operator may have walked into the area and tried to block in the bleeder and have serious injuries or death.** **Is U&E fire protection (Fire Monitors) sufficient? When is the next survey in the division.**	Folks noticed the workers in the video seemed "worn out" and "rushed" just prior to the incident. Lack of experience level refinery wide may have played a part. HO's spend too much time on administrative duties and less time in the plant with the workers. Having an extra SME or a start up overseer in the field whose sole job is to keep an extra set of eyes or referee during start ups and shutdowns was another idea brought forth.	Some critical tasks include proper weld rod selection and hot work in operating areas. Continued use of JSA's and communication between crafts is essential to identifying hazards and their consequences.	Critical Tasks: JHA, some have inadequacies - make sure we are checking the right boxes. Go over with your crew and double check hazards around you and in neighboring plants. Your job in general - make sure you have a clear understanding of how to do your job and the proper PPE and procedures. Make sure there's no mis communication. Tool box meetings / assigning work - it's important to use our time during this meeting to specify status of the equipment and what to expect - if you know. So we can share our experiences on different pieces of equipment. this is like a turnover - add in the details that you know about. 3131 is our main tool to keep the driver safe - capture special instructions on that form. When moving from one place to another Signing in is critical (we'll be getting our permit signed), although may feel like a time consuming task it's important. Also important to sign back out. ...

During routine tasks, sometimes thinking nothing will happen as this has been done many times with no incident. The higher level tasks get more awareness & time taken to complete. The more experienced operator will sometimes not be questioned as they know how to do it properly when maybe it's not the right way. Lesser operators will be looked after more than a good one.	Similar situations are often not addressed and ultimately leads to a problem. People do and should learn from mistakes and mishaps. Use tags to alert personnel of out of ordinary situations down stream / upstream that can serve as a final warning to the operator to avoid an incident caused by the possibly unknown out of ordinary situation.	Situations that trigger a greater level of attention include a changing of plans or work direction, high risk tasks such as fresh air work, and problem areas from the past. What we do differently includes double check procedures, verify isolation with operators, communicate with other crafts, and slow down to make sure nothing critical is overlooked.	who think, "It won't happen to me". that mindset can contribute to incidents., Start taking our jobs more serious. We face a lot of hazards - you can't take short cuts. I want to go home the same way I came to work. Grounding a bonding for us. Sometimes the sources for ground change, we have to check everying before we suck up. When we're doing caustics or acids, av gas --- gives us hightened awareness. More attention / more hazard. Sample at Poly plant - before I went over there.. was the job ready ? We called ahead and found out that the tank was neutralized ... we double checked because the hazard was greater. I wanted to make sure before opening the tank. Pre-trip the job (just like with our trucks). Something could have changed. We do differently: More Hazardous assignments - Supervisors go with driver and technician prior to doing the job. We'll have a hightened sense of awareness (fresh air job). We talk about gas meters/ take a closer look at the job site. Sometimes it takes a near miss/ incident for greater attention to take place, then we take a closer look. (Complacency can work itself into the equation).
Operations sometimes feel their opinions don't count or not cared for. We give them the "Stop work authority" but sometimes question it as an excuse or ploy to not do the work. The crew has had several "SWA" events and all it took was a little time out to make sure all knew the job, as some had different views on the task and how it should be done. Some have done it different ways to achieve the same results.	Avoid a rushed turnover time. Safe park or place unit in a hold mode for a turnover period. A high D/P on a filter does not need to be changed immediately. It just continues to plug until solid. Generally, there is time to deal with a plugging filter without having to "rush right in".	Operations team member did not feel "right" doing the field turnover, which was a change from normal procedures. This could have been a signal to use Stop Work Authority.	SWA: OA had some misgivings ... that was a good opportunity. He recognized the difference in procedures. Don't ignore the feelings. Operators could have stopped this/ asked the question. Feeling "in the heat of the moment" -- you're probably in a bad place. Frustration/ pressure ... this is your chance to use Stop/ pause work authority. There's work to get done, pressure adds to your vulnerability. If you have a job or situation you're not sure about doing - don't be afraid to ask questions. Ask if they are doing it correctly. And ask other people - are they doing the job correctly? If there's a question. It's not a bad thing, whether you know them or not. As supervisors we push our people - it's ok to push back once in a while, ask questions, Maybe I could back off. Have the level of awareness to know when things don't look or feel right. Have the capability to stop/ pause. If I'm uncomfortable, I'll ask questions, with other companies , we'll go over the details until we're comfortable. Keep an open mind and communicate with the person you are working with. We have to ask the questions - or, people will assume things are good. Ask what exactly it is we are being asked to do.

A little more time taken out after the field turnovers..such as a quick tailgate meeting to go over who's doing what jobs & what has been looked at, This was captured as "Monday Morning Qurterback" views. Sometimes the Start-Ups are during shift change and things are not looked at as expected.	Interesting comments ranging from "I am not doing anything different. I believe that I always work safely" to "Wake up call".	When the shift begins, put all focus on the task at hand. Do not allow a lack of incidents to create a false sense of security. D&R event makes the potential for a serious incident real. Use this as additional motivation to look out for one another.	one of our workers got burned. It turned out he wasn't wearing proper PPE. He/ she thought he could quickly do a task --- it only takes a quick second for steam to seep through and cause a burn. There aren't any routine situtations. You have to think about what's the worst thing that could happen. Your family, your coworkers - everyone it touched by an incident. IT changes how you do things and communicate - we have to share hazard, LPSA, surroundings. Check your surroundings to make sure you or another person can do the job safely. Going home to your family after being involved in a serious incident - will affect your family. RLOP incidents - hot loads ... it has done. We need to look at what we're vaccuuming up. Nobody intentionally shoots us hot loads - we have to be the experts. Look at our incidents and make adjustments. Don't just depend on our 3131, be sure paperwork is what it is supposed to be.
The potential for an incident is always present during routine & S/U-S/D times. Bleeder tags should always be hung during critical times and during times that you will not be present or elsewhere.	Yes was the general consensus. Bleeder tags must be used as part of a LOTO. Not necessary for quick line of sight usage such as 'burpping equipment momentarily. Again, if a bleeder could become a "trap" for someone else later on then it should be tagged. A tag is a flag. The operator tag on the upstream service valve could note any downstream "traps" such as open bleeders...Beware...	Consensus amongst crew was that bleeder tags or some similar device should always be used when bleeders are opened. Also, the Chevron operator tags are everywhere and they are the same color/similar shape as the blind tags. Other refineries have long 1.5' white tags with blue letters to distinguish open bleeders from regular tags.	Non Standard? During the SD/ Vac. Truck support, the people are spread out a lot, you can put 4-5 loads (frac tank) and not gauge every time. This is situational . During SD this can slide, we were asked to estimate. Some things get done on the run. SD puts strain on people it's spread out, so many tasks to prioritize, slow yourself down. Everything seems like a rush, Before I offload, I always check. Many manpower issues. 3131s completed in advance of the SD ... you are being asked to bounce all over the unit with one piece of paper. SSE s are here to help us on SD - more difficult to perform work and show people how to do the job at the same time. Mentoring is key, but difficult to balance. It's all on the run. We have to ask more questions during a SD - they have a lot of work, so the Ops may not be as tuned into the hazards of the job. Especially if you are showing up to a fresh air job site ... and you aren't - what am I vaccuuming up?. Experience- can't always rely on the operator. They may be new... it's OK to say, can you make sure you know what I'm picking up. SSE are paired up with someone who knows the job to walk the job with the new driver, what questions to ask, what to look for on the 3131 - how we do things. People from different Chevron facilities do things differently. We need to tell them - this is how we do it here.

A little more time taken out after the field turnovers..such as a quick tailgate meeting to go over who's doing what jobs & what has been looked at. Sometimes during shift change S/D's & S/U's we are forced to look things over in a rushed state or confusion. How the plant is turned over may not always be right. **Having management/S/D personnel in the field will have ops maybe looking at things in a more focused sense that other eyes are watching as well as questions being asked. Chevron trusts us to do the right thing. Lots of responsibility on all to do everything right 100% of the time.....**	Changing stack nox requirments.	During first line breaks or equipment isolations there is the potential for craftsman to make assumptions about the readiness of a system for work. That is why every individual is encouraged to walk down lines themselves and the supervisor is required to verification isolation, proper tags, cut line tape procedures, etc. Dealing with multiple operators throughout a project, some that are only vaguely familiar with the status of out job, creates the potential for something to be missed.	potential ... if equipment is damaged during daily work. Next / Night shift may not receive the information about damage (for example). Pass the information on to the supervisors - he/she will inform the next crew. We have to talk about the job. In SD world the more things we can get in writing the better you are. Take notes about what happens during the course of your day. You don't have to try to remember ... and you can communicate status better. Pass down logs for hydroblast activities. All of that is valuable - during SD and daily business. If equipment breaks - don't be afraid to tell what has happened. With all of the jobs come in, I need to take notes so I'm more aware. This group works well together ("competing companies") --- Ancon, Veolia, Delta Tech, Waste Management, Clean Harbors. **Good communication , people taking ownership of others work. people are watching out for each other. LPOs between contractors is one indicator of this, we're taking care of each other.** We are doing well with direct communication talk all the time. Group hug!
Some LPO's that have been captured in U&E have probably saved some potential consequences by looking into the task more just a routine task that has always been done this way or that's how we've always done this attitude. **Not all tasks have a procedure or job-aid. There have been several in U&E that now have job aids due to incidents.**	Falls on Trainer. HO's should decide.	Continue to use and refine the JSA process. Use LPSA and Stop Work Authority as it is designed. Include everyone in the work zone in the JSA process (including auditors, per Mike Hidalgo).	constantly. Things change, jobs, scope all change. New eyes can bring something to the table. Contact names and numbers change. We can do a better job : FCC, Railcar transfer procedures. They aren't looked at often enough. Are changes sustainable, to make sure we will do everything right two years from now. We need to build in longevity - so that when people turnover happens, we have a procedure that includes all of the details we need. Safety Operators may think 3131s can be used indefinitly, in some cases. We need new ones. We handle the offload from the job differently - things change. Old paperwork isn't always accurate and right. We're required to update procedures - rules vac. truck, based on lessons learned, etc. RI - updates / and training are being shared to bridge gaps. RI quiz - we're updating them.

People Absent: 1	Processing invoices, salary treatments or contracts / POs	Absent:	Absent:
BRAYDEN SERB (SICK)			
*****Brayden reviewed the video upon his return to work			



Supervisor: Martha Morales	Supervisor: Dan McAlpin
Work Group: Capital Projects	Work Group: Contra Costa Electric
Date of Event: 12/16/12	Date of Event: 15 Feb 2012
65	16
Comments:	Comments:
1) I hits right here at home. 2) Its eye opening. 3) We are vulnerable. 4) We know those operators. 4)We all need to walk around with our eyes open. 5)It lets us know how easy it is to become complacent. 6) Maybe we need better day shift, night shift turnovers.	1) Good to see real time reactions to an emergency/incident. 2) It was good that refinery shared an offical recap of the events that took place. 3) We have a better understanding the importance of making sure to talk to the operators when entering the unit for work so they know where we are in case of an event or emergency. 4) Know the evacuations routes from your work sites. Always look for more than one.

81 supervisor response sheets return

1075 Present attendees

1) Better communication during turnovers. 2) A checklist for all bleeder valves and equipment. 3) Walk the line down. 4) Someone getting severly burned or killed. 5) Take time to discuss all procedures prior to going to work. 6) Better lighting. 7) Operators fortunately knew area very well.	1) The incident would have been worse if the operators had not been properly trained on the hazards related to their task and be able to quickly identify that after opening the filter valves that something was wrong and they imediately knew to evacuate. 2) To prevent the incident or reduce the event from happening - Maybe a written check sheet could have been used when swapping the filters out on dayshift that could have been handed off during the shift turnover and vise-versa 3) Maybe a multiple person system should be required to look over the equipment prior to swapping the filters over to make sure the task procedures/instructions had been completed. 4) Why was the lighting so poor for what looks like such a routine task?
1) LPSA-AAA. 2) Communication with others. 3) Follow procedures. 4) Develop a meaningful JHA that everyone understands. 5) Be aware of your work and the work around you. 6) Ask questions and share all information.	In our work: Always getting the right people involve- Utilities, Construction Representative, Engineers, Operators. Always perform LOTO and test before you touch. Written JHA and tailboard meeting to discuss the task to be performed make sure the group understands the task before signing the JHA. Understanding the procedures and task instructions of the client. Always using the proper PPE and good working tools. Walk the job and mitigate the risk on every job or every task.

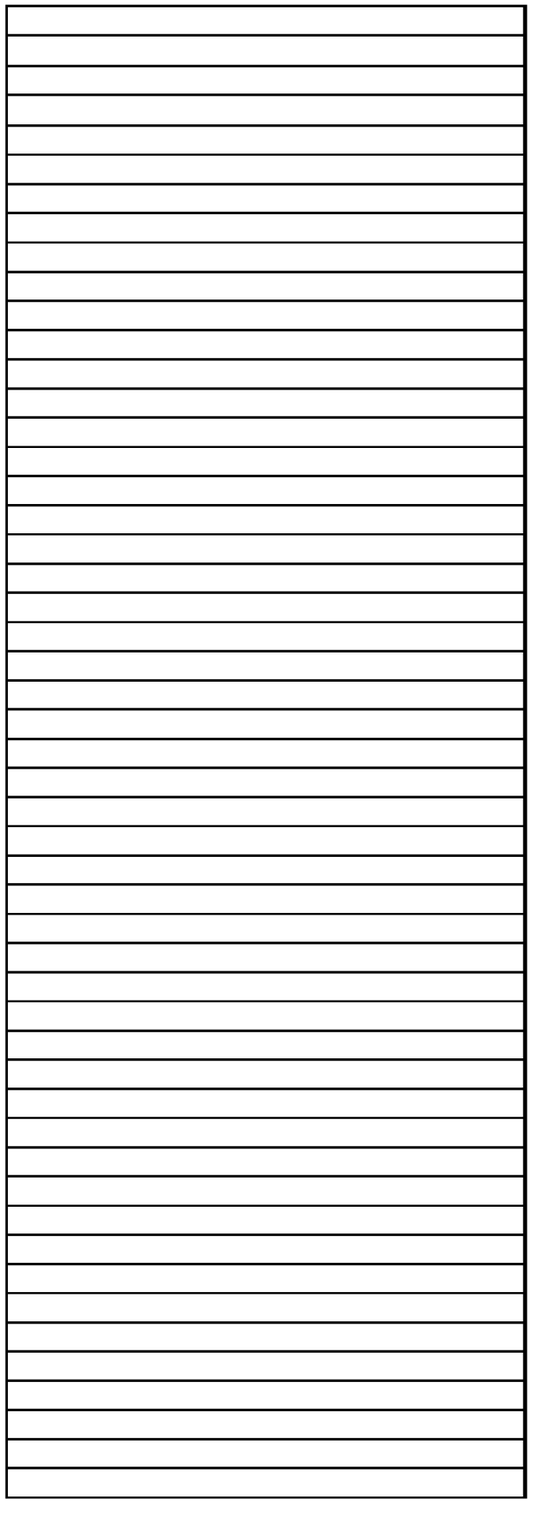
1) This could definetly happen to any of us. 2) High risk jobs such as confined space, rigging and hot work make me more alert. 2) Ask more questions and involve more people. 3) Work your plan.	It could happen to anyone. 1) More attention is raised in our work as the voltage level rises or anytime we are required to work on anything hot. Written documented procedures are needed, permits and checklist need to be filled out and reviewed with and signed by the customer representative. 2) Attention is increased anytime a flash suits needs to be worn.
1) Pause and come back to check this work. 2) Use Stop Work Authority. 3) Communicate with others to see if they completed tasks. 4) Communication is key. 5) Build relationships with others to ensure communication and mutual trust.	Stop/pause work should have been called at the time the field turn-over was called. Getting all parties together to understand and communicate the condition that equipment, to assess to risk together, and mitigate any potential risk.

1) Shows how vulnerable we are. 2) Raises awareness 3) Lets you know the real dangers of what is in the pipes. 4) Be aware of your surroundings. 5) It happened right here at our refinery.	
1) Even when it is normal work practices, we need to stop and talk about the work. 2) Make sure all who work on valves walk the system and check all lines. 3) Don't trust human error. 4) Verify all blinds and tags at all times.	Standardize procedures as LOTO should always be used and followed each and everytime.

1) Gaps in communication in things we do. 2) shifts in behavior toward safety. 3) Mindset is not on work/ Stay focused. 4) People became complacent and stated that, "It would never happen to me." 5) There was no designated leadership during this task. 6) Fatigue due to T/A shift work.	
1) The jobsite changes and our processes should as well. 2) We update procedures to reflect our unique tasks. 3) We discuss all tasks every morning and how the area may have changed from the day before. 4) Did the operators involved fill out an appropriate JSA before this task and subsequent incident?	

Absent:	Absent:

50 Absent Total



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